

Take of the Powder of Marshmallow-root, and the Meal of Linseed, each an Ounce; Flowers of Marshmallows, and Elder, each half an Ounce; Leaves of white Horehound, and Scordium, each a Quarter of an Handful; Sal Ammoniac, a Scruple. Make, according to Art, a soft Cataplasim, adding at last a little Linseed oil.

This Cataplasim spread upon a Cloth, and applied to the Part, is sufficient for all the aforesaid Intentions: For, by means of such Applications, the Pores are dilated, whilst the morbid Matter is push'd out and separated by the Force of the vital Power, and its Retreat inwards is prevented. In the mean time, all possible Care must be taken, that no Cold ever reaches the Part, and that it never becomes dry, lest the Pores contracting should repel the Flux of Matter. Another very prudent Caution here is, that during the whole Time of the Cure, the Patient strictly abstains from all Food which partakes of the least oily Quality: He must, also, avoid every thing, which, by an acrimonious Activity, stimulates to Venery; such as Spices, bulbous Roots, Flesh, Eggs, Fish, and fermented Liquors; for there is nothing that more retards the Cure of a *Gonorrhœa*, than the Inflation of the Penis. For since during that State its Cells are expanded by the warm Blood flowing in from the Arteries, till they are almost in danger of bursting, their Breaches will now be made wider, the contagious Particles will be roused, exasperated, put into Motion, and mix'd with the Mass of Blood accumulated in the Cells; and, when the Penis collapses, these poisonous Corpuscles will be taken into the Circulation along with the returning Blood. Hence I have often, in this Disease, seen the most approved Methods of Cure frustrated by this Condition of the Penis, which here has too many Causes to produce it: And, even from one Venereal Paroxysm, I have often known this Disease, after it has been already subdued, make a fresh Attack, and require a new Application of all the former Efforts against it. Whatever, therefore, the Cook, the Vintner, or the Apothecary, supply to the Irritation of Venery; whatever has a Tendency to tickle the prurient Fancy, whether the Company of Women, or lewd Pictures, or wanton Conversation, or lascivious Reading; all such Provocatives and Allurements must here be avoided as certain Death. Water and Whey I would recommend as very proper for Drink; and, for Food, Seeds and Summer-fruits.

If ever hydragogue Purges are of excellent Use, it is here. Jalap, Hermodactyls, Scammony, and Sena, are singularly good in this Case: These, when frequently repeated, melt down the red Blood into Serum, determine the resolved Fluids downwards, and discharge them by the Intestines; while, at the same time, they act powerfully upon the urinary Passages, the Bladder, and Urethra. Hence it is, that these Purges are so much in Vogue in those Countries of which this Disease is a Native, as *Africa* and *America*; nor are they held in less Esteem among the greatest Masters of the medicinal Art among us.

And now, after all, I cannot easily believe, that any other Practice, that has yet been pursued, is at all superior to this here laid down; for there are not many other Methods but what I know, and have try'd, and yet this does not in the least suffer by the Comparison. This Method is not, indeed, quite so happily calculated for the Convenience of those who live in Courts, who study Pomp and Magnificence, or are hurried in public Business: But the safest Courses are often difficult, and attended with Trouble. I know how sanguine the Mountebanks are in their Promises. They pretend to remove this Disease, tho' the Patient all the time indulges in regal Luxury, tho' he is every Day on Horseback, or abandons himself to all manner of Sensuality. For my part, I have attempted the same, but have never had the good Fortune to succeed under these Circumstances; and it has many a time moved my Pity, to see several Patients of Distinction, who had been manag'd in that manner, liable for some Years to the Remains of the long-contracted Disease.

In the mean time, if the Patient cannot be prevail'd upon to submit to the Trouble of Cataplasms, Fomentations may be us'd in their stead; and, when his Situation is such, that neither of these can be conveniently apply'd, emollient Plaisters, as the *Emphytrum de Alucilaginis*, or *de Meilato*, may be substituted in their Place. But the Preference here always belongs to Cataplasms and Fomentations.

It makes another kind of *Gonorrhœa*, when the Venereal Poison, after having insinuated itself thro' the Pores of the Glans, has penetrated into that cellular Substance, which is apply'd round the upper Part of the Urethra, so as to form a small Ulcer there; which, thro' Passages that it has eat into the Cavity of the Urethra, pours its Pus into that Canal, out of whose Canal it is perpetually trickling, but in greatest Plenty when the Penis is press'd at this Part, and the Pressure continued forward from its Root. What is here most remarkable is, that it, after the Patient awakes in a Morning, and before

he has emptied his Bladder, a Pressure begun an Inch behind the Apex of the Penis be continu'd forwards, a considerable Quantity of Pus may be discharg'd; which Method of Compression, and Manner of Discharge, consider'd, it appears that this Pus did not come immediately from the Canal of the Urethra, but that it had been first squeez'd out of its fungous Substance into its Cavity: And in this Species of *Gonorrhœa*, if you begin from the Neck of the Bladder, and press all the Way to the Glans, you will not be able to squeeze out the least Drop of that kind of Matter from beyond this Part. This, therefore, is the only affected Part, and hither must all your Efforts be directed. This is the Shape in which the *Gonorrhœa* most commonly appears at first; and this Species of Disease occurs every Day. For the most part it produces a vast Quantity of Venereal Pus, continues a long time in People of lax Habits; and yet, if the purulent Matter has a free Exit, it seldom occasions a Pox; so far from that, it rather prevents it: But it is principally attended with this Misfortune, that when it has continued a long time in the sinuous Meanders of the cellular Membrane, it is subject to produce tedious Gleets, which all the Art of the World cannot, without extreme Difficulty, dry up.

The Cure of this *Gonorrhœa* is the same with that of the first kind; only I would advise besides, that the Penis and Scrotum be, three or four times a Day, for half an Hour together, bathed in the same Liquors that I have already recommended for Fomentations. In the mean time, as the affected Cells can scarcely be reach'd by Injections, these are of little Service here, except at the first Appearance of the Disease, or when the internal fungous Substance has scarcely suffered any Injury.

I reckon it the third kind of *Gonorrhœa*, when the contagious Particles have enter'd and taken Possession of the *Glandula Cowperianæ Urethræ*, so that the Pus discharges itself by their excretory Ducts into the Urinary Duct. Here the Disease works out vast, hollow, fistulous Sinuses, which flow with large Quantities of Matter, and are very difficult to deterge, and consequently to heal. If the Discharge of this Ichor so produc'd is by any means obstructed, it sometimes forms very malignant Ulcers about the Sides of the Urethra, where these Glands, according to the Description of their noble Discoverer, are situated. Hence proceed very obstinate Ulcers, which give a great deal of Trouble to both the Physician and Patient, and frequently continue for some Years. What renders the Cure so insuperably difficult in this Case is, that when once the contagious Matter has made its Way into the Folliculi of those Glands, it can scarce be expel'd, but there it lies in spite of all that can be done to discharge it: By Stagnation it becomes every Day more and more virulent, and spreads the Infection thro' the neighbouring Parts; inso-much that sometimes the subcutaneous pinguinous Cells towards the Root of the Penis are affected by it; and what miserable Effects this may, and in fact sometimes does produce, any knowing Practitioner can tell. This *Gonorrhœa* requires the very same Treatment with the two former: But here the least Time must not be lost. The affected Parts must be kept in a constant State of Laxity by the most emollient Applications, and the contagious Matter must, with all possible Expedition, be drawn out; for the Success of your Practice here entirely depends upon the total Discharge of the infectious Matter, together with the Pus which it has introduc'd; and, if this Task is not perform'd, a Pox is greatly to be apprehended. Wherefore, if this Disease continues but for a little time, we must have recourse to all the Severities of a Salivation: For, tho' Salivating does not at all cure either of the two former kinds of *Gonorrhœa*, this Species of the Disease, as it has its Seat in a more solid glandulous Part, in which the Action of the Heart and Arteries is brisker, is much more susceptible of the Power of Mercury.

Besides these, there is a fourth *Gonorrhœa*, which differs from the rest: For, after the virulent Matter has, by the Passages already describ'd, reach'd the Prostate, it wastes their Substance, and melts it down into a very plentiful Mass of virulent Pus. This Disease sometimes takes its Rise from other *Gonorrhœas* long-continued, but principally from often repeated ones. It discovers itself by Tumors upon the Perineum; sometimes too the Parts all around the Region of the Prostate are most miserably ulcerated, by which means the neighbouring Parts are destroy'd, and become a very shocking Spectacle.

But one of the most common Symptoms of this Disease is, that frequently those miserable Patients, all at once, and without any manifest Cause, are seiz'd with a Suppression of Urine; whence they are tortur'd with a great many painful and fruitless Attempts to make Water; while, at the same time there is no Admission of the Catheter to relieve them that Way: At last, after a long Torment, some Quantity of Pus on a sudden makes its Way out of the Orifice of the Urethra, a little after which the Urine is discharg'd without Difficulty, till the same Mischief returns again. I have sometimes seen

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this Disease, and you cannot but be sensible what a hard Matter it is to accomplish a Cure. Here Salivation takes place; and here all the Remedies recommended against the aforementioned kinds of Gonorrhœa must be very diligently apply'd.

The last and most abominable Species of this Disease happens, when, from the already-mention'd Affection of the Prostatæ, the Emissaries of the Vesiculæ Seminales, describ'd by the famous *Morgagni*, gaping with open Mouths among the Ducts of the Prostatæ, are eroded. Whence the Venereal Poison, admitted by these Emissaries into the seminal Reservoirs, corrupts their Vessels, and contain'd Liquids, with its Virulence, occasions a very copious Discharge of most filthy Matter, and ulcerates those sinuous Parts intorted into a great many winding Labyrinths. Hence what enormous Mischiefs ensue! I have seen that whole cellular Apparatus, which invests, and separates from one another, the Vesiculæ Seminales, the Bladder of Urine, the Rectum, and Perinæum, ulcerated, putrefy'd, and corroded into fistulous Caverns, reaching as far as the Scrotum, the Anus, and Perinæum; so that these Parts were entirely destroy'd by the mining Corruption, whilst, in the mean time, there was no Benefit receiv'd from the Use of Baths, Fomentations, or Injections; nor from the Application of Plasters, Ointments, or Cataplasms; nor from making Incisions into the Sinuses, or dilating their Orifices. In spite of all these Means, I have known the Disease proceed till the very Urine was discharg'd by those Ulcers. And if these topical Remedies did no Service, the most abstemious Life, the Use of Decoctions of the Woods, the Sweating-box, and the best-manag'd Salivations, did as little.

Astruc adapts the Cure of a Gonorrhœa to the different Stages of the Disease.

Thus, in a Beginning of a Gonorrhœa, he advises Bleeding to be repeated more or less, according to the Violence of the inflammatory Symptoms; and, where these are very severe, he thinks Bleeding is to be as plentifully used as in a Peripneumony, or Dysentery.

He prescribes, for the Patient's ordinary Drink, Ptisan made of emollient and refrigerating Herbs, together with Crystal Mineral, or Sal Prunellæ; and, if the Belly is not open enough, he advises a Glyster of the same Ptisan to be administer'd every Day, either alone, or with a little Vinegar, Sal Prunellæ, or Pulp of Cassia.

Where the Inflammation is not mitigated by the Use of the Ptisan, he advises the Patient, Morning and Evening, to take a large Draught of Emulsion of the Seeds of Melon, Agnus Castus, Hemp, white Poppy, or Linseed, prepar'd with the Decoction of the Flowers of Water-lily, adding to it, after straining, a sufficient Quantity of the Syrup of Water-lily.

Where the Symptoms are very violent, he recommends an Opiate, dissolv'd in both Doses of the Emulsion, but especially that taken in the Evening.

Where the Dysury, and inflammatory Symptoms, are very severe, he recommends Fomentations of Milk for the genital Parts, emollient Cataplasms to be apply'd to the Perinæum, and emollient, cooling, and Saturnine Injections.

He recommends the Use of Camphire, and Sugar of Lead, internally, as prodigious Anodynes and Coolers; each to be given from the Quantity of six Grains, to half a Scruple; but he gives a just Caution to use them sparingly, especially the Sugar of Lead. This, however, in my Opinion, ought never to be us'd at all internally.

In the mean time, he advises a thin moistening Diet of young animal Food; Abstinence from spirituous Liquors, from all Sauces with Salt and Spices, from Venery, and violent Exercise.

In the second Period, when the Inflammation, and painful Symptoms, begin to remit, and the Matter flows more freely, he lays down the following Intentions: (1.) To discharge as much of the contagious Particles, by the purulent Running, as possible. (2.) To drive out the rest by Purging. And, (3.) If any Remains of them are left, to discharge and correct them by means of Mercury.

In the first Place, therefore, he gives a gentle lenitive Purge of Cassia, or the like, lest a strong one should excite the Inflammation afresh. But afterwards, if there be Occasion, he allows a brisker one of Diagridium, or Mercurius Dulcis.

He disapproves of the common Method of Purging, and giving Preparations of Mercury alternately. For, he says, these sharp Preparations not only injure the Stomach, and weaken the Patient; but, by increasing the Acrimony of the Blood, render the Ulcers more malignant and obstinate: And he tells us, that he has frequently seen a remitting Dysury, and yielding Gonorrhœa, return upon their Use, and a yellow or green Discharge reappear.

Instead of these, he advises rubbing the Perinæum, Genitals, Hips, and Groins in Men, the Perinæum, Hips, Groins, and Labia Pudendorum in Women, once in three or four Days, with a small Quantity of mercurial Ointment, not above one or two Drams at a time, lest a Salivation should be brought on;

and, if any Symptoms presage that, it must be prevented by gentle Purges.

By these means, he says, the Particles of Mercury, without any Injury to the Stomach, being apply'd immediately to the affected Parts, easily penetrate into them, reach the Particles of the Venereal Poison, and destroy them.

These Ointments are to be thus us'd, till the Discharge is destroy'd, and the Cure of the Gonorrhœa completed.

In the mean time, proper Remedies for resolving the Remains of the Inflammation, deterring the Ulcers, and correcting the Acrimony of the Blood, must not be omitted.

But if the Inflammation returns, or the virulent Discharge is suppressed, which frequently happens from Irregularities in the Non-naturals; such as Intemperance in Eating and Drinking, Venery, or too much Exercise; this Method, he says, must be laid aside, as not only useless, but noxious; and the Method of Cure, laid down for the first Stage, must be call'd in.

In the third Period, when the Inflammation, and painful Symptoms, are gone, and the Discharge is abated, and become thicker, milder, and whiter, his Intentions are to deterge and consolidate the internal Ulcers, and to temperate and correct the Acrimony, which the Blood, and seminal Fluid, have contracted from the Venereal Taint, by the means of sweetening and diluting Medicines.

For these Intentions, he recommends Balsams, Milk, the acidulous, vitriolic, mineral Waters; and, if the Gonorrhœa does not yield to these, the internal Use of Astringents. And after the Heat is gone, and the Discharge is become thin, whitish, ropy, and inconsiderable as to Quantity, he says, you may safely have recourse to Injections of the detergent Vulneraries, as Decoctions of Bugle, Sanicle, Horehound, Guaiacum, Lady's-mantle, and the like, with Honey of Roses; or of hot sulphureous Waters, diluted with a Decoction of Barley. As for astringent Injections, he says, they are never safe.

He cautions against some common Faults in the Method of managing this Disease: As, 1. Against the exhibiting strong Cathartics. 2. Administering Decoctions of Guaiacum, without Distinction, to all Patients; though, at the same time, he allows, that these Decoctions are successful enough in drying up Ulcers in corpulent pituitous Habits. 3. The immoderate Use of internal Mercurials, especially where the Blood is affected with an acrid Dyscrasy. 4. The preposterous Use of styptic Injections, which frequently occasions a genuine Lues, or a morbid Constriction of the Urethra; and hence a violent Strangury.

He enumerates the different empirical Methods, as he calls them, of curing this Disease, and condemns every one of them. Among the rest, he takes notice of the internal Use of the Sugar of Lead, which, he says, may be given with Success in the Gleet, which sometimes remains after the Cure of a virulent Gonorrhœa. But, at the same time, he gives a Caution, never to administer it in a larger Dose than four or six Grains; and if it occasions any Heart-burnings, Pain at the upper Orifice of the Stomach, or Nausea, to lay it aside immediately. It is, however, more safe not to give it at all.

He also examines the different boasted Methods of preventing Infection; but justly concludes, that there is not one of them to be depended upon, not even the fashionable, modern Practice, which he charges upon the *English*, tho' the *French* are in the Mode too.

He treats of two other Kinds of Gonorrhœa, which, he says, less frequently occur; and first, of the virulent dry Gonorrhœa, or, more properly, the dry Venereal Dysury, by which he means a Dysury with a Sense of a burning Acrimony, without any Discharge from the Urethra, or, at least, with very little.

This Dysury, he says, is sometimes attended with a Strangury, Heat, Redness, and Swelling of the Perinæum, and often of the whole Penis; sometimes with a slight Strangury, without any sensible Swelling, or Redness, in the Perinæum, or Penis.

Hence, says he, this Gonorrhœa ought to be distinguish'd into two Kinds; in one of which the Prostatæ, or Vesiculæ Seminales, are inflam'd; and this either precedes a severe virulent Gonorrhœa, or follows a suppress'd one. The other is produc'd by an erysipelatous Inflammation of the Urethra, which may be a Prelude to a virulent Gonorrhœa, but, for the most part, is neither the Forerunner nor Attendant of any other Disease.

As to the Prognostics, he says, 1. That a dry Gonorrhœa is always worse than a running one, both because the Poison is retain'd, and because it erodes and injures the affected Parts more.

2. The first of these two Kinds of Gonorrhœa, if the Inflammation is not speedily resolv'd, is very subject to degenerate into an Abscess of the Perinæum.

3. The second Species, if it is not soon resolv'd, ends in a Sphacelus of the Part.

For the Cure, he advises the antiphlogistic Method, and recommends

commends Bleeding once every fourth Hour at first, emollient Fomentations, Injections, and the Use of emollient Diuretics: By which Method, duly observed, he says, within three, four, or, at most, six Days, you will be able to procure a virulent Flux, or the Inflammation will be gradually resolved without any. Above all, he advises, in these two kinds of Gonorrhœa, that, as soon as the Remission of the Symptoms makes it safe, Mercurial Ointments be cautiously apply'd for a long time to the Perinæum; because, as the Poison, in these Cases, is not discharg'd by any Running, there is the greater need of Specifics to correct it.

Women, he says, are also subject to the virulent dry Gonorrhœa; and the Parts affected in them are the Prostatæ, and Cowper's Glands, or the Vagina. The Cure is easily deduc'd from the Method of curing the same Symptom in the other Sex.

What he calls the spurious Gonorrhœa, is a Discharge of lymphatic, subviscid, purulent Matter, from the Crown of the Glans, which, at the same time, is affected with a Pain and Inflammation, together with a slight Erosion. This Species, he says, is frequent in Men; and he is of Opinion, that Women are not exempted. In Men, he says, its Seat is the sebaceous Glands, upon the Corona; in Women, those upon the entire external Surface of the Pudenda.

The predisposing Causes, as he alleges, of this Symptom, are, the Laxity of these Glands, and the too great Length of the Prepuce.

In his Prognostics, he says, this Species of Gonorrhœa is, for the most part, without Danger, provided proper Remedies be us'd; but, if it is neglected, these superficial Erosions of the sebaceous Glands are very subject to degenerate into cancerous Ulcers, and these, where they become callous, to occasion a Phymosis, Paraphymosis, and Crystallines.

The Cure, he says, is perform'd by Bleeding, the Use of detergent and emollient Applications; and, after the Inflammation is abated, by the Antivenereals, propos'd in the Cure of a common Running; and, at last, where the Discharge is mild, and yet does not stop, he advises to foment with the Decoction of Guaiacum, red Wine, in which Iron has been quench'd, or a weak Solution of Sugar of Lead in Plantain-water.

He gives the History of the Case of a young Man, who contracted a violent Ophthalmia, with a lachrymal Flux, by washing his Eyes, every Morning, with his own Urine, while he labour'd under a virulent Gonorrhœa: Both which Diseases yielded to the same Method of Cure with the Gonorrhœa.

With respect to those Diseases which succeed a Gonorrhœa, the first he treats of, is the Swelling of the Testes; with which Symptom a Gonorrhœa is frequently complicated.

It proceeds, he says, from two Causes: 1. A suppress'd Gonorrhœa. 2. From the Venereal Poison in the Blood, by which the Seed is inspissated and accumulated in the Meanders of the Testes.

From the first Cause it is more inflammatory, and, consequently, more capable of being resolv'd, especially if the Gonorrhœa can again be set a flowing; though it frequently suppurates, and degenerates into a fistulous Ulcer.

What remains unresolv'd of the second kind, he says, is subject to harden into a Scirrhus, which frequently produces an Hydrocele, Pneumatocele, or Sarcocoele; and often degenerates into a Cancer.

In the Cure, he recommends frequent Bleeding, and the antiphlogistic Regimen. All internal strong and purging Remedies as well as external Astringents and Repellents, are to be avoided; and Anodynes only are to be us'd, under the Form of Lotions, Fomentations, and Cataplasms. Conducive to this Purpose are a Decoction of the Root of Althea, and Lindseed; or Milk, somewhat warm, with which the Scrotum may now-and-then be fomented; or an anodyne Cataplasm of the Roots of Lilies, with Leaves of Henbane, Mallow, and Branc-urine, boil'd to a Mucilage, and mix'd with the Flower of Lindseed, and Oil of Earth-worms, or of Lilies. After the Inflammation and Fever are abated, he advises a gentle Purge, after that, the Application of mild Resolvents, and the internal Use of antivenereal Remedies.

The Hardness which frequently remains, especially in the Angles of the Epididymides, must be discuss'd by the Application of the succinated Balsam of Sulphur, Oil of Rue, Mercurial Plaisters, or Ointments. He says, that such Applications as merely relax, the Mucilage-plaister, and the Plaister of Sperma Ceti, for Example, often do Wonders here.

While these Medicines are applied, he recommends a suspensory Bandage.

Where the Inflammation proceeds to a Suppuration, he says, as soon as it appears that there is Pus form'd, it must be discharg'd with a Lancet, lest it should destroy the soft Texture of the Testicle.

In case of a fistulous Ulcer remaining from the Suppuration, or a Scirrhus, he advises the Use of Mercurial Ointments. See HERNIA.

2. The next Symptom is a Venereal Abscess of the Perinæum.

This proceeds, he says, from a Suppuration of the Vesiculæ feminales, Prostatæ, but most frequently of Cowper's Glands. It is owing to Neglect, or bad Management, both in the Method of Cure, and the Regimen; especially in such Patients whose Blood is of an acrid Disposition, or where these Parts have been tainted with repeated Gonorrhœas.

As for the Prognostic, these Abscesses are always dangerous, more or less; but most so, where they have dug out Sinuses into the Urethra and Anus; in which Case, for the most part, nothing but a palliative Cure ought to be attempted, because of the Danger and Inconveniencies which attend the Use of the Knife here.

The Indications of Cure are the common ones in case of Abscesses.

3. He farther considers mild continual Gleet, and involuntary Emissions of the seminal Fluid.

He tells us, they are of two kinds, either a perpetual, but slow, Running, from the too great Wideness of the Emissaries; or a more plentiful Discharge, which only happens when the Imagination is affected with lewd Ideas, or the Patient just upon the Point of Venereal Enjoyment: This kind, he says, is owing to the Laxity of these Emissaries; and that, of these two, the last it most easily cur'd.

As the perpetual Gleet is, in his Opinion, sometimes encourag'd by a slight Inflammation of the Prostatæ and Vesiculæ feminales, whence their Nerves become more sensible, he recommends Bleeding once or twice at first; by which means, he says, he has more than once seen a recent Gleet cur'd.

In like manner, as this Symptom is, for the most part, increas'd by the Acrimony of the seminal Juices, contracted from the Venereal Poison, or the Use of acrid Medicines, he advises Sweeteners, and a Milk-diet.

The Cure is to be carried on by Vulneraries, Balsamics, and Styptics, externally and internally.

In the mean time, he recommends a thin, moistening, and refrigerating Diet; forbids the Use of Wine, Venery, violent Exercises, and particularly Riding; at least, he would have the Patient to be very moderate in these Articles. He advises him not to retain his Water long; and, if his Belly is not sufficiently open, he recommends frequent Clysters.

Women, he tells us, are subject to the same Disease, and to be cur'd the same way.

4. The next Symptom, which succeeds a Gonorrhœa, is an obstinate Strangury.

This Symptom, he says, by Drinking, Venery, Exercise, Riding, Walking, an acrimonious Diet, or violent Passions, is sometimes aggravated into an Ischury.

The Causes of this Strangury are, 1. Callous Ulcers of the Urethra. 2. Hard Cicatrices there. 3. Caruncles. 4. The Caput Gallinaginis becomes scirrhus or verrucose. 5. The Prostatæ, or Vesiculæ feminales, become hard, callous, or scirrhus. 6. Or spongy and fungous. From all which Causes the Cavity of the Urethra, he says, is lessen'd; and a Strangury, of course, produced, from the violent Impulse of the Urine upon the Obstructions in the Urethra; and the more so, if these Obstacles are any way inflam'd or ulcerated.

This Symptom, for obvious Reasons, is, he says, rarely met with in Women; though, he tells us, he has sometimes seen a Strangury in that Sex, from a Compression of the Urethra, by means of a Callosity and Tumor of the surrounding Glands; and once from a Discharge of acrid Pus from the suppurated Glands into the Urethra.

The different Causes of this Symptom are to be distinguish'd, but, he owns, with no great Certainty, by the Matter which is discharg'd after the Urine, as whether it be Pus or Mucus; and by the Catheter, by which, from the Quality of the Matter that appears upon it, one may judge of the State of the Parts, but especially of the Number and Size of the Obstacles.

As for the Prognostic, our Author says, this Symptom is always difficult of Cure, because of the Nature of the Obstacles, and always presages Danger from an Ischury.

He begins with the Cure of the Ischury, which is to be attempted by bleeding once every four Hours, and the antiphlogistic Regimen, and the Application of Emollients to the Perinæum; and, where the Case is very urgent, by the cautious Introduction of the Catheter, which must remain in the Passage, till the Inflammation of the Urethra is either resolv'd or suppurated.

Where the Catheter cannot be introduced, and a Gangrene is threaten'd, he advises cutting upon the Extremity of the Catheter, after it is thrust in, as far as it will go, introducing, by the Wound, a straight Catheter into the Bladder.

But, if neither of these Methods succeed, he advises to thrust the Trocar, by a Wound of the Perinæum, into the Bladder, according to the Direction of the Urethra.

In the Cure of the Strangury, he, for very good Reasons, rejects the now obsolete Use of Catheterics; as also the Pra-

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Office of laying open the Urethra, for the sake of destroying the Obstacles by proper Applications.

In the next Place, he takes notice of the Method, by introducing Tents into the Urethra, which he approves much of, and, to the Honour of this Method, says, that it effectually mitigates, by a safe and easy, though slow Way, the most obstinate Stranguries; but he finds Fault with it upon account of the troublesome Apparatus; and, for this Reason, besides, that as these Tents only fill and dilate one Part of the Urethra, the other Parts must suffer a greater Constriction.

For these Reasons, he prefers to this Method the Introduction of leaden Rods, anointed with Oil of sweet Almonds, or fresh Butter, every Day, through the Urethra, into the Bladder, to remain in the Passage for three or four Hours every time, beginning with a very small one; and, as soon as that can be introduc'd and taken out again without Pain, changing it for one of a Size larger; proceeding thus till the Obstructions are all depress'd, and the Strangury remov'd.

But, as these Obstacles are very subject to arise again, he says, this Operation ought to be perform'd after the Symptom disappears, two or three times a Week, and afterwards three or four times a Month. But, after all, he says, this Symptom is rather to be palliated, than perfectly cur'd.

In the mean time, that this Method may be us'd with the greater Safety and Success, he gives the following Cautions:

That the Venereal Poison be subdu'd by antivenereal Specifics, before this Method be attempted; that you chuse, if possible, the Spring or Autumn for it, because the Parts are then the most yielding; that you first correct the Acrimony of the Juices by bleeding, purging, and refrigerating Decoctions, and the Use of Whey; that the Patient, all the time of the Cure, abstain from Wine, Venery, and Exercise, and use a refrigerating low Diet, and apply emollient Fomentations to the Perinæum; that the leaden Rods be chosen, such as have not the least Crack upon them, lest, breaking, they should occasion a Necessity of laying open the Urethra; that they be introduc'd very cautiously and deliberately, because, says he, it is found by Experience, that if they strike rudely upon the Obstacles, the Patient is presently seiz'd with a sudden Horripilation, and a violent ephemeral Fever; if this happens, that a Vein be immediately open'd; that, if there is a violent Dysury, or sharp Pain, that Symptom be reliev'd by anodyne, or even narcotic, Injections; that, if there are any Ulcers, they be deturg'd and heal'd by proper Injections; and, in the last Place, that the Remains of the Disease be carried off by the Use of Asses or Cows Milk, or the mineral Waters; and, where there is any Discharge of Mucus or Sanies, that it be dry'd up by proper Injections. *Astruc de Morbis Venereis.*

With respect to Caruncles, which are excessively troublesome, and difficult of Cure, *Heister* assigns the following Causes, and proposes the subsequent Methods of Treatment.

Men who have been affected with a Gonorrhœa, or an Ulceration of the Urethra, sometimes find an uncommon Difficulty in making Water, so that they cannot void it without Straining, and violent Pains, and then only in a Stream no larger than a Thread; and, sometimes, the Passage is even totally obstructed. This was attributed to a Caruncle in the Urethra, till, very lately, *Brunner*, Physician to the Elector Palatine, and *Dionis*, in his Surgery, rejecting this Opinion, ascrib'd it rather to a Cicatrix remaining after the Cure of an Ulcer, which proceeded from a Gonorrhœa; and this is confirm'd by many Instances of dead Bodies which have been opened. But *Arnaud* and *Petit* impute it to a Tumor form'd in the spongy or cavernous Body of the Urethra itself, (as happens to the Membranes of the Nose in a Coryza) which stops that Passage. However, some oppose the Experience of one Party to that of the other, and contend for the former Opinion. Lastly, *Benevoli*, a Surgeon of Florence, dissents from both: He declares, in a Treatise on that Subject, that he always found the Part of the Urethra or Prostatæ, which Anatomists call *Caput Gallinaginis*, tumefied and ulcerated, but could never yet find the Urine obstructed by a Caruncle in the Cavity of the Urethra, and that the Obstruction was always proportionable to the Quantity of Pus lodg'd in the *Caput Gallinaginis*. This Disorder, he says, generally arises from a virulent Gonorrhœa; and that in the Beginning, as well as at the latter End, there is a constant Discharge of purulent Matter and Fibres with the Urine. For my own Part, I must acknowledge, there may be Truth in each of these Opinions, as the same Disorder may spring from different Causes. But the true Cause is immaterial, since the Method of Cure is the same. The Surgeon may soon determine, whether it arises from a Caruncle, by the Patient's own Account. For, in that Case, the Obstruction is not so sudden, but the Passage decreases gradually, till it is totally closed up, and there is a continual Endeavour to discharge the Urine from the perpetual Irritation of the foreign Body in the Urethra; the Urine, also, carries off with it purulent Matter, or Fibres, and Membranes. Sometimes it is attended with a slight Fever. The

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Seat of this Disorder may be discover'd by passing a Catheter, leaden Probe, or Wax-candle, into the Urethra; for wherever the Instrument meets with any extraordinary Resistance, there we suppose it lies. Lastly, as this Disease is very painful, and sometimes mortal, it will be proper to direct Methods for the Cure of it.

If the Caruncle is recent, without any great Stricture in the Urethra, the following Method will perfect a Cure. The Patient should be seated on a Couch or Bed, and, while the Surgeon holds the Penis in his Left Hand, he must, with his Right, introduce a leaden Probe, or Wax-candle, about a Foot long, and the Thickness of a large Catheter, dipt in Oil, into the Urethra, as far as, or, indeed, somewhat beyond, the Obstacle: This must be secur'd with a proper Bandage, and left there for some Days, till the Urethra appears to be pervious, or the Progress of the Disorder check'd. When the Patient would make Water, the Probe or Candle must be extracted, and then inserted again, till the Cure is completed. But if it is so inveterate as not to yield to the preceding Method, it will be proper to dress the End of the Probe or Candle with white Vitriol, burnt Alum, red Precipitate, Unguentum Fuscum, or *Ægyptiacum*, or any other gently corroding Medicine. This should be repeated once or twice, till there is a free Passage open'd for the Urine: We have many Instances of Cures perform'd in this manner. But *Brunner* and *Benevoli*, who deny that this Disease proceeds from a Caruncle, condemn this Practice, because by it the Urethra is corroded and ulcerated; and I join with them, where there is no Caruncle, and prefer a Continuation of the former gentle Method. The Patient should always discharge his Urine, before the Insertion of the leaden Probe, or Wax-candle, that it may remain the longer without Extraction, and more effectually compress or dilate the Parts. This is to be continued till the Passage is entirely open'd; and, when the Disease has been of long standing, even after an absolute Cure, it may be necessary to keep a Tent constantly, for a few Weeks, in the Urethra, or, at least, to introduce one at Intervals, that the Parts may continue pervious. *Benevoli* advises to involve the End of the Probe in the Emplastrum Diapalmæ, that the Part affected may be more securely heal'd. Mean time Injections of Lime, or Plantain-water, with a little Sugar of Lead, or the *Lapis Medicamentosus* of *Crollius*, are to be arrown up the Urethra.

When the Passage of the Urethra is entirely obstructed without an Inflammation, the Catheter will give Relief. If this Instrument cannot be passed gently, it must be strongly, but cautiously, press'd and twisted, to break the Caruncle or Cicatrix, and dilate the Parts. After the Urine is discharg'd, a leaden Probe, or Wax-candle, dipt in Oil of Eggs, or of sweet Almonds, may be passed into the Urethra, to keep it open. But if, on account of an Inflammation, the Catheter cannot be introduc'd, and the Patient's Life is in Danger, recourse must be had to the following Remedy: The Bladder is to be open'd by the Trocar, either in the Perinæum, or above the Os Pubis, which we shall explain at large under the Article ISCHURIA. When the Bladder is thus open'd, and the Urine discharg'd through the Pipe left in it, the Surgeon proceeds to the Cure, by Methods already propos'd. When the natural Passage is free, the Tube may be extracted, and the Wound heal'd.

If there is a violent Inflammation of the Urethra, neither the Catheter, Probe, nor Wax-candle, should be introduc'd, as they would increase it; but the Patient should be bled plentifully, and order'd discentient Medicines internally and externally; and, in particular, the Parts affected should be treated externally with discentient Fomentations and Cataplasms; and, when the Inflammation abates, the Surgeon may dilate the Passage, by introducing the Catheter, Probe, or Candle, and retaining them in the Passage for several Days. When the Inflammation is slight, the Urine may be drawn off by the Catheter.

Great Care must be taken not to thrust the Wax-candle into the Bladder; for a broken Piece, remaining there, may lay a Foundation for a future Stone. When the Difficulty of discharging the Urine proceeds from a Disorder in the Bladder itself, as an Excrecence, Abscess, or Ulcer, or an Induration of its Neck, or the Prostatæ, it is very seldom curable: For the Probe, Candle, and all corrosive Medicines, are not only useless, but pernicious. On the contrary, when the Urine is obstructed by a Tumor, Ulcer, or Cicatrix, in the Urethra, the Probe or Candle, dipt in Oil, is the properest Remedy: The Cicatrix, indeed, is the most difficult to remove; though *Benevoli* assures us, from his own Experience, that it is to be done by this Method; and, as we are at present unacquainted with a better, we must pursue it. *Heister Chirurg.*

Thus have I given an Account of the Methods propos'd by the most rational and celebrated Authors for the Cure of a Gonorrhœa. But, with respect to a benign Gonorrhœa, I must remark, that the most formidable and frequent Species of this is, when the retaining Vessels of the Organs of Gene-

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ration

ration are so extremely relax'd, as to permit the seminal Juices to pass off, upon the slightest Stimulus, as a lascivious Idea, or Conversation with a Woman; though this is frequently attended with a continual Weeping or Gleet. When this is the Case, an ignominious Impotence, as to Venereal Enjoyments, is induc'd, which scarcely ever admits of a perfect Cure.

There is, perhaps, no Sin, productive of so many hideous Consequences, as that which is the general Cause of the Imbecillity here mention'd. Providence has implanted in human Nature, what is by some call'd the Passion of Love; and, by others, the Appetite of Lust, for very wise Purposes; but has given us Reason to restrain this necessary Inclination, and keep it within due Limits. Every Day, however, furnishes us with Cases, which evince, that Reason is not always a Balance against the Appetites; for Boys, regardless, or, perhaps, ignorant of the Consequences, too frequently indulge themselves in a preposterous Method of Venery; and it is to be suspected, that many more advanc'd in Age, who are long immur'd in Colleges and Cloisters, and at last elope from their Cells, utterly destitute of Science, and equally unacquainted with the World and Books, are not less guilty of this enormous Vice. These, by a most detestable kind of Magic, conjure up, at Pleasure, an ideal *Venus*, and thus never want an Opportunity of enjoying an imaginary Mistress. The frequent Repetition of these execrable Pleasures weakens the Tone of the retaining seminal Organs, and induces the worst Species of a Gonorrhœa, attended with an utter Impotence, as to real Enjoyments. If such are, afterwards, so wicked as to marry, for so I must call it, the Consequences of their preceding illicit Practices, are extended to Families, and the Public, for Reasons too obvious to require farther Explanation.

Cold Embrocations of the genital Parts, and those adjacent, with old Verjuice diluted with Water, have been much recommended; and wrapping up the Parts perpetually in Cloths impregnated with the same, are said to do great Service, and may possibly have good Effects; but I have known more Relief from a long-continued Use of the cold chalybeate Waters drank at the Fountain-head, together with a due Course of strengthening and astringent Remedies, both externally and internally apply'd, than from any other Method.

GONOS, γῶνος. The same as GONE; which see.

GONYALGIA, γονυαλγία, from γόνυ, the Knee, and ἄλγος, Pain; is the same as GONAGRA.

GOR, according to *Scaliger Exercit.* is a Tree growing by the River *Niger*, and bearing a Fruit like the Chestnut, but bitter. *J. Leo* tells us, that these Trees are of an extraordinary Tallness, and grow at a great Distance from the Sea, on the Continent. *Ray H. P.*

GORAS. The Name of the Person, who, as we are inform'd by *Oribasius, Med. Col. Lib. 1. Cap. 40.* introduc'd a Flesh-diet among the Athletæ, who before dieted themselves on *Carica*.

GORGONEI FONTES. Fountains of a petresying Quality. *Libanius, Art. Chym.*

GORGONIAS. A Name given to Coral; because on its Change of Place from Water to Air it immediately hardens into a stony Substance. The Reason of the two last Names is taken from the well-known Story of the *Gorgon*.

GOSSAMPINUS, *Plin. Arbor lanigera G. Pison*. A Tree in the *East Indies*, producing a sort of Wool or Cotton, which is too short to be spun or carded, but only serves to stuff Beds, for which Use it is very proper, being very fine, soft, and light. In medicinal Use it is good to recal Heat and Spirits into the Parts to which it is apply'd, and is proper for the Palsy, and to heat the Stomach, being apply'd thereto. The Tree takes its Name from *Gossipium*, Cotton, and *Pinus*, a Pine-tree, because it has some Resemblance of a Pine, and bears a sort of Cotton.

GOSSIPUM, Cotton. See XYLON.

GOSSUM. The same as BOTIUM, or BRONCHOCLE.

GOTNEMSEGIAR. A Name for the XYLON ARBOREUM. *Boerhaave, Ind. alt. Plant.*

GOTTIE. The same as GUTTA GAMBA.

GOUDBOOM. A Name for the *Conocarpodendron*; *folio crasso, nervoso, lanuginoso, supra crenato, ibique limbo rubro; flore aureo; Cono facile deciduo.*

GRACILIS. The Name of a Muscle of the Leg, which, *Doughlas* says, arises by a thin and broad Tendon from the Os Pubis, near its Commissure: It soon grows fleshy, and, descending by the Inside of the Thigh, is inserted tendinous into the Inside of the Tibia near the Sartorius. Its Use is to bend the Thigh and Leg inwards.

But *Winflow* describes two Muscles under this Name; the one is the *Gracilis anterior*, otherwise called *Rectus anterior*; and the other is the *Gracilis internus*, otherwise call'd *Rectus internus*.

GRACILIS ANTERIOR, SIVE RECTUS ANTERIOR.

This Muscle is as long as the Os Femoris, and lies directly along the fore Side of the Thigh, from whence it has the

Name of *Rectus anterior*. The greatest Part of it is fleshy, and the Middle is broader than the two Extremities. It is called *Gracilis*, from its Thinness or Flatness.

It terminates above, by a pretty strong Tendon, which is divided into two Branches; one short and strait, the other long and bent. The short Branch, running up in a strait Line, is inserted in the anterior inferior Spine of the Os Ilium. The long Branch is inflected backward over the Supercilium of the Acetabulum, and runs in the Direction thereof from the Spine toward the great ischiatic Sinus. It is strong and flat, adhering very closely to the Bone, and cover'd by the orbicular Ligament and the Glutæus Minimus; and therefore they who follow the common Method in Dissecting, often cut it off, and observe only the small Branch of the Tendon.

From thence the Muscle runs down wholly fleshy, and partly penniform, some of its Fibres meeting above, and separating below. It is narrow at the upper Extremity, and grows gradually broader toward the Middle. Afterwards it contracts again in the same manner, and at the lower Extremity of the Os Femoris ends in a flat broad Tendon.

Through its whole Course it lies between the two Vasti, and covers the Cruræus; and its inferior Tendon is inserted in the upper Edge of the Patella, from whence it sends down a small Plane of tendinous Fibres, which adhere very closely to the convex Side of that Bone, and, having reached the great Ligament, seem to be lost therein.

This Muscle, by its Insertion in the Patella, is a Congener to the *Vastus Internus*, *Externus*, and *Cruræus*; and serves to extend the Leg. By its Insertion in the Os Ilium, it bends the Thigh, and assists the Psoas, Iliacus, and Pectineus, whether the Leg be extended or bent. It likewise moves the Pelvis forward on the Os Femoris, and hinders it from falling back when we sit.

Being partly penniform, and partly simple, it is capable of sustaining great Efforts, and of producing large Motions; and its Line of Direction, which is raised to a considerable Distance from the Centre of Motion of the Hip and Knee, increases these Advantages. The particular Disposition and Largeness of its second superior Tendon answer principally to all the Degrees of Flexion.

The other Tendon, commonly describ'd, would not alone have been sufficient for that Purpose; but its Obliquity is convenient for the Extension of the Leg, when the Thigh is extended, or but little bent: But, when the Thigh is very much bent, this Obliquity would remove the small Tendon to too great a Distance from the Bone, and thereby expose it to be torn off, in the same manner as we tear off the Branch of a Tree, by separating it from the Trunk. The Obliquity here mention'd is with respect to the Os Femoris, this superior Tendon lying out of the Direction of that Bone.

GRACILIS INTERIOR, SIVE RECTUS INTERIOR.

This is a long thin Muscle, lying in a strait Line on the Inside of the Thigh, between the Os Pubis and the Knee; and from this Situation and Structure its Names are taken.

It is fixed in the Edge of the inferior Branch of the Os Pubis near the Symphysis, by a broad and very short Tendon, on one Side of the Insertion of the Triceps secundus, but a little lower down.

From thence the fleshy Fibres, contracting a little in Breadth, run down to the internal Condyle of the Os Femoris, where they terminate in a thin Tendon, which afterwards degenerates into a kind of Aponeurosis, and is inserted in the fore Part of the Inside of the Head of the Tibia.

This Tendon is inserted immediately below the Sartorius, by which it is partly covered, and above the Semi-tendinosus, which it partly covers, mixing some Fibres with it. Before it ends, it makes the same oblique Turn, and is braced down in the same manner as the Tendon of the Sartorius, and it sends the same kind of Aponeurosis obliquely downward, on the Inside of the Tibia.

This Muscle bends the Leg much in the same manner with the Sartorius, which it assists in this Function, but not in that of turning the Leg; and it is more proper to continue the Flexion, than to begin it, it being principally when the Thigh is turned by the Sartorius, that the *Gracilis* contributes to this Action.

It may likewise assist the Triceps in the Adduction of the Thigh, which it performs with much more Facility than it begins the Flexion of the Leg without the Rotation of the Thigh. This Facility in all Situations of the Thigh is procured by the Distance of the superior Insertion of this Muscle from the Joint of the Hip; but it cannot with the same Ease bend the Leg, when the Thigh is not turned; for this Reason: While the Thigh is only extended, the Line of Direction of this whole Muscle is nearly in the same Plane with the Axis of Motion of the Knee, and therefore the Distance of its superior Insertion gives it no Advantage. But, when the Thigh is turned round by the Sartorius, the Plane of its Direction changes and crosses the Axis of the Ginglymus of the Knee, and

and then the lateral Distance of its superior Insertion facilitates its Action on the Leg. *Winslow's Anatomy.*

GRACULUS. Offic. Bellon. des Oyse, 283. Charlt. Exer. 75. *Coracias*. Mer. Pin. 172. *Coracias*, seu *Pyr-rhocorax*. Will. Ornith. 86. Raii Ornith. 126. Ejusd. Synop. A. 40. Gesn. de Avib. 473. Aldrov. Ornith. 1. 769. Jonst. de Avib. 26. THE CORNISH CHOUGH.

This Bird is found in *Cornwall*, and many other Places. Apply'd externally, it is said to resolve Tumors, and to be good against scrophulous Swellings. *Dale.*

GRÆA, γράα. In *Moschion*, either imports an old Woman; or the wrinkled Pellicle which concretes upon Milk, and some other Liquors, as they cool after boiling; or the wrinkled Skin about the Navel, which is a Sign of old Age.

GRAMEN, Græs. Botanists mention a great many Species of Græs. *Tournefort* takes notice of eighty-six, and other Authors of a great many more; for which the Curious may consult *Scuechzer's Agrostographia*, Tiguri, 1719. 4to.

I shall only specify in this Place those Species of Grasses, which are principally us'd in Medicine.

GRAMEN ARUNDINACEUM. Offic. *Gramen dumetorum panicula acetosa, semine papposo*. Raii Hist. 2. 1287. *Gramen arundinaceum panicula spadicea molli majus*. C. B. P. 7. Theat. 95. Raii Synop. 3. 401. *Gramen paniculatum arundinaceum panicula densa spadicea*. Tourn. Inst. 523. *Gramen tomentosum arundinaceum*. Ger. Emac. 9. *Gramen spica candida & Serici modo lucens*. J. B. 2. 476. *Calamagrostis sive Gramen tomentosum*. Park. Theat. 1182. REED GRASS.

It grows in moist woody Places; the Root is used; it agrees in Virtues with the common Reed. *Dale.*

GRAMEN CANINUM. See AGROSTIS.

GRAMEN DACTYLON, Offic. *Dactylon folio arundinaceo majus*. C. B. P. 7. Theat. 112. *Dactylon radice repente sive Officinarum*. Tourn. Inst. 510. *Gramen Dactyloides radice repente*. Ger. Emac. 28. *Gramen repens cum paniculis graminis Mannæ*. J. B. 3. 459. Raii Hist. 2. 1271. Synop. 3. 399. *Gramen Canarium Ischæmi paniculis*. Park. Theat. 1178. *Gramen legitimum Clusii*. Tourn. Mat. Med. 101. COCK-FOOT GRASS.

It grows in Fields, Vineyards, and in sandy Places. The Root is used, and its Virtues are the same with those of the AGROSTIS. *Dale.*

GRAMEN LEUCANTHEMUM. See ALSINE.

GRAMEN MANNÆ. Offic. *Gramen mannæ esculentum*, Ger. 25. Emac. 27. *Gramen dactylon esculentum*. C. B. P. 8. Theat. 118. *Ischæmon sativum, sive Gramen Mannæ esculentum*. Park. Theat. 1178. *Gramen Genus Dens Caninus tertius, sive Gramen primum, vel Galli Crus*. J. B. 2. 444. MANNA-GRASS, RUSSIA-SEED.

It grows in *Germany* and *Poland*. The only Parts in Use are its Seeds, which are small, oblong, pellucid, white, of a faint Taste; and, when decorticated, not unlike Rice. These Seeds are possess'd of the same Qualities with Rice, are moderately astringent, resolve hard Tumors of the Breasts, and, when used as Aliments, are moderately nutritive. *Matthiæolus*. They are, also, said to be highly efficacious in the Cure of the Rickets in Children.

But of what Plant these are the Seeds, is a Point not agreed upon by the Literati of the present Age, some imagining, that these Seeds are the granulated Pitch of a certain Palm, which is pretty much of the same Nature with Sago; whilst others maintain, that they are the Seeds of the Manna-grass, with whom I agree, and have therefore call'd them so. In this Opinion I was lately very much confirm'd by that ingenious Botanist *Johannes Philippus Breynius*, when in *England*. *Dale's Pharmacologia.*

GRAMEN PARNASSI. See PARNASSIA PALUSTRIS ET VULGARIS.

GRAMIA. The Sordes of the Eyes.

GRAMINULÆ are young Frogs, not yet furnish'd with Feet; Tadpoles.

GRAMMA, γράμμα. A Scruple, with respect to Weights, thus called, because it is the twenty-fourth Part of an Ounce, as a Letter bears the same Proportion to the Alphabet.

GRAMME, γράμμα. The Iris of the Eye.

GRANA. The same as MIGRANA.

GRANA Cnidia. See CNIDIA.

GRANA Paradisi. See CARDAMOMUM MAXIMUM.

GRANA Tiglia. See LIGNUM MOLUCCENSE.

GRANA Tinctorum. See CHERMES.

GRANADILLA. The Passion Flower.

The Characters are;

The Calyx is, first, triphyllous; from whence proceeds a short Pedicle, and from that a quinquefoliated Calyx, which closely embraces the Flower; and afterwards expands in form of a Star. The Flower is rosaceous, pentapetalous, and expanded like a Star; within the Petals are many party-colour'd Filaments, dispos'd in a Circle, and after them minute Leaves, in an erect Position. Within these arises the Axis, or Pointal, surrounded, at first, by five expanded Stamina, which grow to

it, are dispos'd circularly, and furnish'd with appendent, versatile Testiculi; next to these is seated the Ovary, of an oval Form; on whose Apex grow three Tubes, with scabrous obtuse Apices, and inclining towards the subjacent Testiculi. The Fruit is oval, or globous, carnosus, unicapular, and full of Seeds, which are affix'd to Ribs, as to Placentæ, and involv'd in a Calyptra.

Boerhaave mentions ten Species of this Plant, which are,

1. Granadilla; pentaphyllos; flore cœruleo, magno.

2. Granadilla; pentaphyllos; latioribus foliis; flore cœruleo, magno.

3. Granadilla Hispanis; Flos Passionis Italis.

4. Granadilla; folio tricuspide; flore parvo, flavescente. T. 240.

5. Granadilla; flore albo; fructu reticulato.

6. Granadilla; folio tricuspide; flore magno, flavescente. T. 240.

7. Granadilla; pentaphyllos; angustifolia; flore albo. Prægn.

8. Granadilla; triphyllous; flore roseo. Prægn.

9. Granadilla; folio tricuspide, obtuso, & oculato. *Fauillier*. Tom. 2. 718.

10. Granadilla; quæ Clematidis; Indica, latifolia; flore clavato; fructu maliformi. T. 82. *Boerb. Ind. alt. Plant.* Vol. 2. p. 81.

The first and second Species are of a very sweet and vinous Flavour; and all the Species are refrigerating.

The *Historia Plantarum*, attributed to *Boerhaave*, informs us, that all these Plants are refrigerating.

Miller takes notice of seventeen Species.

GRANAGRANUM. An obscure Term in *Paracelsus's* Treatise de Caduco Matricis, the Meaning of which is not understood.

GRANAL. *Lemery* informs us, that this is a sort of evergreen Plant, which grows in *America*, from the Cielings of Rooms, sometimes not far from the Fire. The Juice is esteem'd poisonous; and the Plant is of no Use in Medicine.

GRANATRISTUM, in *Paracelsus*, is a Carbuncle.

GRANATUM. The Pomegranate. See PUNICA.

GRANATUS. Offic. Worm. 104. Schw. 380. Charlt. Hoff. 37. Boet. 152. Schroder. 328. De Lact. 17. Mont. Exot. 14. THE GRANATE.

This is a pellucid Gem, of a yellowish red Colour, almost like that of native Cinnabar. It is said, if prepar'd and taken internally, to be drying and strengthening; to cure Palpitations of the Heart; and to resist Melancholy and Poison; and to stop Hæmorrhages. It is, also, believ'd, by some, to have the same Effects, if suspended about the Neck. *Schroder. Dale.*

GRANDA. A Name for the Philosophers Stone.

GRANDEBALÆ. The Hairs which grow under the Arm-pits.

GRANDINOSUM OS. A Name for the Os Cuboides.

GRANDO. See CHALAZA.

GRANULATIO. A Granulation, that is, a Reduction of Metals into small Grains.

GRANUM. A Grain. With respect to Weight, it is the twentieth Part of a Scruple.

GRAPHIOIDES, γεραιοίδης. A Name for the Styliform Process. See CAPUT.

GRAPHISCUS, γεραιοσκός. The Name of an Instrument, invented by the celebrated *Diocles*, for extracting Darts. It is describ'd by *Celsus*, L. 7. C. 1.

GRASSA. Borax.

GRATIA DEI. A Name for the *Geranium*; *Batrachiodides*.

GRATIOLA. A Name for the *Digitalis*; minima; *Gratiola diela*.

GRAVATIVUS. An Epithet for a sort of Pain attended with a Sensation of Weight. See DOLOR.

GRAVEDO imports a Pain in the Head, with a Sensation of Heaviness; and is, also, the same as CATARRHUS, or CORYZA.

GRAUS, γράυς. The same as GRÆA; which see.

GRAVUS. A Marble, or Porphyry, us'd in Pharmaceutical Operations.

GRESSURA. The Part interpos'd betwixt the Pudenda and Anus.

GRIGALLUS. The Bustard. *Lemery* says there are two Species, one call'd the *Grigallus major*, which is very large; the other the *Grigallus minor*, which is something larger than a Partridge. These Birds are esteem'd aperient, and good for the Nephritic Colic. The Brain is esteem'd good to increase the seminal Juices.

As the Bustard lives entirely on Vegetables and Water, and its habitual Exercise is not very great, the Salts should not seem to be very highly exalted.

GRIPHOMENOS, γερφωμένος, from γερφω, or γερφω, a Net. Implicated. In the first Book of the *Prorrhetics* of *Hippocrates*, Text 100. γερφωμένα, is an Epithet for ἀλγύματα, Pains; where it seems to import no more than Pains removing from the Loins, and seizing upon, or being fix'd on, the *Hypochondria*. GROS-

GROSSULARIA. The Gooseberry Bush. This is a Plant too well known to want a Description. *Boerhaave* enumerates seven Species, and *Miller* nine.

Grossularia; *Spinosa fativa*. C. B. P. 455. *Tourn. Inst.* 639. *Boerb. Ind. A.* 2. 153. *Grossularia*, *Uva crispa*; *Offic. Raii Hist.* 2. 1484. *Grossularia*. *Park. Theat.* 1560. *Uva crispa*. *Ger.* 1143. *Emac.* 1324. *Uva crispa*, *sive Grossularia*. J. B. 1. 47. *Parkin. Parad.* 560. THE GOOSEBERRY BUSH.

This Bush is cultivated in Gardens, flowers in *April*, and yields ripe Fruit in *July*. No Parts of it are in Use, except the Fruit, which, when unripe, as also that of the *Egyptian Thorn*, is said to be effectual against the preposterous Appetite of pregnant Women, to excite the Appetite, and to stop Fluxes. These Berries, when boil'd in Liquors, are advantageously exhibited in feverish Indispositions: And, when ripe, they are innocent and friendly to the Stomach. *Dale's Pharmacologia*.

They are not good for melancholy Persons; they sometimes incommode the Stomach, prick and contract it a little too much, especially when they are green.

They have a great deal of Oil, essential Salt, and Phlegm, in them; they are very good in hot Weather for young bilious and sanguine Persons.

Gooseberries, in the Beginning, are green, and of an acid Taste, because the acid Salt, contain'd therein in a large Proportion, is not yet encumbered with Sulphurs, and thus it can operate upon the Nerves of the Tongue very powerfully; inso-much that this Salt, being at that time united with nothing else but some Proportion of Earth, excites an astringent and styptic Sensation; whereas afterwards the little Oil contain'd in the Gooseberries, which before was kept back by passive Principles, gets loose, rises, and, by the Help of Fermentation, unites itself with the Salts, and divests them partly of their Strength; then it is that Gooseberries are ripe, when they have a sweet Smell, and yellowish Colour: From whence we may conclude, that the riper Gooseberries are, they are so much the less astringent; and so, when you have a mind to have Gooseberries preserved, the green are to be prefer'd before those that are ripe.

The said essential Salt, wherewith Gooseberries abound, is the Cause of the principal Effects wrought by them. In short, they would not create an Appetite, were it not that this Salt lightly pricks the little Fibres of the Stomach; they would not cool, and be good for People sick of Fevers, and be endu'd with the little Virtues, but because this Salt, by imparting a little more Consistence to the Humours, stops their violent and impetuous Motion. *Lemery on Foods*.

GROSSUS. An unripe Fig.

GRUMA. The Tartar of Wine. *Rulandus*.

GRUMUS. A Grume, or concremented Clot of Blood, Milk, or any other Substance.

GRUS. *Offic. Schrod.* 5. 319. *Will. Ornith.* 199. *Raii Ornith.* 274. *Ejusd. Synop.* Avium 95. *Gesn. de Avib.* 494. *Aldrov. Ornith.* 3. 324. *Jonst. de Avib.* 114. *Charlt. Exer.* 114. *Mer. Pin.* 185. *Bellon. des Oyse* 188. THE CRANE.

The Whole of this Bird, its Fat, its Gall, its Head, its Eyes, its Stomach, and the Marrow of its Legs, are us'd. The Bird itself, because nervous, is said to be highly beneficial to the nervous and membranous Parts; hence the Use of it is recommended in Colic Pains. Its Fat, if dropt into the Ears, lessens Deafness, softens Hardness, and obstinate Tumors of the Spleen; it quickly relieves a Stiffness of the Neck, and is said to be of the same Nature with the Fat of a Goose. The Gall is beneficial to the Eyes. The Head, Eyes, and Stomach, when reduc'd to a Powder, are sprinkled upon Fistulas, Cancers, and varicose Ulcers. An ophthalmic Ointment is prepar'd of the Marrow of the Legs. *Schrod.*

GRUTUM. A sort of gross Oatmeal. *Lemery des Dragues*.

GRYALI Collyrium. An extorsory Collyrium, describ'd by *Aetius, Tetrabib.* 2. *Serm.* 1. C. 110.

GRYGALLUS. See **GRIGALLUS**.

GRYLLUS. *Offic. Mer. Pin.* 200. *Gryllus domesticus*, *Schrod.* 5. 342. *Raii Insect.* 63. *Aldrov. de Insect.* 442. *Charlt. Exer.* 44. *Jonst. Insect.* 65. THE CRICKET.

This is an Insect with Wings, of a rusty Colour, an Inhabitant of the Fire, and highly officious with its squeaking Notes. The Ashes of it exhibited, are said to be diuretic; the express'd Juice, dropt into the Eyes, is a Remedy for Weakness of the Sight, and alleviates Disorders of the Tonsils, if rub'd on them. *Schrod. Dale*.

GRYPA. The Name of an Ointment, describ'd by *Nicolaus Achropus, Sect.* 3. *Cap.* 43.

GRYPALOPEX, γρυπαλωπῆξ. This Word occurs in *Hippocrates Epidem.* L. 6. *Sect.* 8. *Aphorism.* 52. and seems to be the additional Name of a Man.

GRYPHIUS PES. The Name of an Instrument mention'd by *Pare*, in his Surgery, *Lib.* 24. *Cap.* 35. for extracting a Mole out of the Uterus.

GRYPHUS. A Name for the Philosophers Stone.

GRYPOSIS, γρύπσις. An Incurvation of the Nails. *Caelius Aurelianus*.

GUABAM. The Name of a sweet and cooling Fruit, which grows in the *West Indies*. It is about two Palms long, has a cineritious Rind, and a white Pulp, intermix'd with some hard Nuclei. *Raii Hist. Plant.*

GUACATANA, *Scrophularia Indica*. *Park. Folia affinis Guacatane*. C. B. The Name of a Plant, which grows in *New Spain*.

It is effectual in the Hemorrhoids. The Method of using it is, first, to boil the Plant in Wine, or, if the Disorder be attended with Heat, in Water, and wash the Parts therewith; then gently to dry them, and afterwards to sprinkle them with the Powder of the same Plant. It also mitigates Pains proceeding from Cold, and Flatulences, in any Part of the Body, the Place affected being first anointed with Rosin; then sprinkled with a very fine Powder of this Plant, and a Linen Cloth applied upon the same. *Raii Hist. Plant.*

GUAJABO. See **GUAJAVA**.

GUAIBARA. The Name of a Tree that grows in *Hispaniola*, which the Spaniards call *Uvero*. The Leaves are very large, and are us'd, by the Inhabitants, instead of Paper.

GUAJACANA.

The Characters are;

The Leaves grow alternately, and are caducous; the Calyx is quadrifid, the Flowers monopetalous, Bell-shap'd, tubulous in the lower Part, with the upper generally expanded into five Lobes or Segments. The Ovary is seated in the Centre of the Calyx, and becomes a flat, soft, roundish, multicapsular Fruit, supported by an expanded tetaphyllous Calyx, and containing several hard Seeds, disposed in a circular Order.

Boerhaave mentions three Species of this Plant; which are,

1. *Guajacana*. J. B. 1. 238. *H. Eyf. Vern. o. Arb. & Fruet. F.* 13. *Fig. 1. Lotus Africana, latifolia*. C. B. P. 447. *Diospyros, sive Faba Græca latifolia Pseudolotus Matthioli*. *Lugd.* 349. *Guajacum Patavinum*. *Park. Theat.* 1522.

2. *Guajacana*; angustiore folio. T. 600. *Lotus, Africana, angustifolia, seu Fœmina*. C. B. P. 447. *Diospyros, sive Faba Græca, angustifolia, seu Lotus Africana*. *Lugd.* 349. *Guajacum Patavinum, angustioribus foliis*. *Park. Th.* 1523.

3. *Guajacana*? *Pilhamin Virginianum*. *Park. Th.* 1523.

The Leaves and Fruit are astringent, and therefore good in Hemorrhages and Diarrhoeas. *Hist. Plant. ascript. Boerb.* p. 657.

GUAJACUM. *Offic. Ger. Emac.* 1611. *Raii Hist.* 2. 1685. *Guajacum, sive Lignum sanctum*, *Park. Theat.* 1586. *Guaia-cum magna matrice*. C. B. Pin. 448. *Fruetus Guaiaci putatus & folia*. J. B. 1. 499. **GUAJACUM**, or **POCK-WOOD**.

This is a large Tree, having a hard, brittle, brownish Bark, not very thick, covering over a firm, solid, ponderous Wood, appearing very resinous, of a blackish yellow Colour in the Middle, of a hot and somewhat aromatic Taste; the smaller Branches have their Bark of a whitish Ash-colour, full of short pinnated Leaves, each consisting usually of four oval shining firm Pinnæ, having never an odd one at the End. The Flowers grow several together in small Umbels, each of six little yellow Leaves full of Stamina, having the Embryo of the Fruit in the Middle, which, when small, is in Shape like the Seed-vessel of Shepherd's-purse, or an Heart with a sharp Point at the End. This Tree grows in *Jamaica*, and other Parts of the *West Indies*. *Miller's Bot. Off.*

Ulric Hutten, who, in the Year 1519. wrote a Treatise of the Method of curing the Lues Venerea, by the Use of Guaiacum, tells us, that the Remedy was known in *Europe* two Years before; but, if we may believe *Brassavolus*, it was not brought into these Parts before the Year 1525. And the Occasion of its Introduction, as he informs us, was as follows: "There was, he says, one *Gonsalvo*, a Spaniard, who was "terribly afflicted with the Venereal Disease; and, having "tried all manner of Remedies, to no Purpose, being mov'd "with the Fame of this celebrated Medicine, took a Voyage, "in Company with others, to the newly discover'd Countries, "and was there perfectly cur'd; after which he return'd to "Portugal, profess'd Medicine, and cur'd all those who were "infected with the before-mention'd Distemper, by the Use "of the same Remedy with which he was cur'd by an Indian "Physician." But *Hutten*, in the before-mention'd Treatise, says, "That a certain Spanish Nobleman, who was Receiver-general of *Hispaniola*, and miserably afflicted with this "Lues, being shew'd this Remedy by the Natives, first brought "it in Use in *Spain*, tho' very dubious whether it would have "the same Effects in a foreign Country as in its native Soil." But, by whom, or by what means soever Guaiacum came first to be known, it is unanimously agreed, by all the Authors of that Age, that we are obliged for this Remedy to the *West Indies*, where the Distemper was first contracted.

There are two Species of Indian Wood adapted to the Cure of the Lues Venerea; one of them solid, dense, resinous, blackish,

blackish, consisting of variously complicated Fibres, of an acrimonious, bitterish, and aromatic Taste, and of a fragrant Smell; this the *Americans* call *Hiacan*, or *Huiacan*; whence comes the *European* Name *Guaicum*: The other, in Denseness, Complication of Fibres, Taste, and Smell, is very much like the other, but of a more whitish, or rather a more yellowish Colour; this the Natives call *Hoaxecan*, and the *Europeans* *Lignum Sanctum*, for its extraordinary Virtue. The Bark of both of them is ligneous, thin, hard, consisting of a Multitude of parallel and closely compacted Laminæ; on the Outside, of an Ash-colour, inclining to red, of an acrimonious and bitterish Taste, and almost void of Smell.

The Trees, producing these Woods, differ not only in Age, as was the Opinion formerly, and many still imagine, but also in Kind or Species, as has been demonstrated particularly by *Plukenet* in his *Phytographia*. Both Sorts are now common in the *Leeward* Islands, and all that Part of *America* which lies under the Torrid Zone.

The antient Way of making a Decoction of *Guaicum* most in Use was, to take a Pound, or twelve Ounces, of the thin Chips or Raspings of the Wood, and infuse it in eight, ten, or twelve Pints of Water, for the Space of four-and-twenty Hours, in a new earthen Pot. Then the Vessel being well stopp'd, they boil'd it in *Diplomate*, (that is, by setting the Pot in a Furnace full of Water) to the Consumption of a fourth or third Part, or even of half, as they would have the Decoction of more or less Strength, or as they thought most agreeable to the Strength and Temperament of the Patient, or the Violence of the Disease; this done, they strain'd the Decoction, and, letting it cool, bottled it up for Use. To the Wood left in the Pot, they pour'd the same Number of Pints of Water as before; and then boil'd it over a gentle Fire, to the Consumption of a fourth Part; then strain'd it, and set aside this secondary Decoction, or *Bochetum*, in Glass Bottles, as they did the first: This latter serv'd for ordinary Drink, as the first did for Medicine.

Whether the Wood of *Guaicum* without the Bark, or the Bark without the Wood, or both together; or whether *Guaicum* alone, or in Conjunction with other Woods, Roots, or Plants, of the same Nature, are to be used; or whether the Decoction is to be made in Wine or Water, or in a Decoction or distill'd Waters of some Plants of much the same Kind, has been matter of Dispute among the Physicians in former Times, and manag'd with much Heat; but it is impossible to fix any certain Rules for so doubtful and precarious a Subject, where there is such a Variety in the Temperament, Age and Condition of the Patient, as well as in the Nature, Degree, and Complication of the Disease; for which Reason, the whole Affair is to be entrusted to the Management and Skill of the Physician, who is the best Judge of what is most suitable to the Exigences of every particular Case, and on emergent Occasions.

The Decoctions being got ready, the Patient, being first prepar'd by some gentle Cathartic, and a sparing Diet of some Days, was closely confin'd to his Chamber, which had a good Degree of Warmth, either by Art or Nature, and was well fenc'd and secur'd against the Air and Cold. The Patient, being confin'd to his Bed, took every Morning, very early, a Glass, which held eight or ten Ounces of the first Decoction warm; then, well covering himself up with the Bed-clothes, he compos'd himself to sweat for two or three Hours. After this, the Sweat being absterg'd, and the Body dry'd, four Hours at least after the Decoction, the Patient had two or three Ounces of Biscuit, with a few Raisins, Almonds, or Pistachios, offer'd him to eat, and he was to drink plentifully of the secondary Decoction. Four Hours afterwards he took another Glass of eight or ten Ounces more of the primary or first Decoction; then sweated three Hours, as before; and, after wiping his Body, was allow'd to eat two or three Ounces of Biscuit, with some Raisins, Almonds, or Pistachios, and to take off some Cupfuls of the secondary Decoction, as before. But, if the Patient was thin, attenuated, or of a tender and weakly Constitution, and unlikely to support so severe an Abstinence, a somewhat larger Quantity of Biscuit and Raisins, or a Marchpane, or even some Chicken-broth, was indulg'd him; and, after some Days, perhaps, he had a Quarter, or Half, of a small Chicken, roasted, or boil'd in pure Water, without Salt, allow'd him. In this Method did they persist for fifteen Days; in which Space of Time, if the Belly was costive, an emollient Clyster was administer'd every second or third Day: After the first fifteen Days, the Patient was purg'd with some gentle Cathartic, as the Pulp of Cassia, Manna, Tamarinds, or the like; and, on such Occasions, he drank nothing but the secondary Decoctions for that Day. When this was over, he enter'd upon the same Course of Medicine as before, till the thirtieth or fortieth Day, but had a little larger Quantity of Food, by degrees, allow'd him; and, after the five-and-twentieth or thirtieth Day, if his Strength were sufficient, was permitted, now-and-then, to rise out of his Bed, and, being well clothed, to take a Turn or two about

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the Chamber, provided he was free from the least Sweating. Towards the End of the Cure he was again purg'd; and, after that, he had the Liberty of walking out of his Chamber, not, indeed, into the open Air, but into another Room, till he was able to bear the Air. And they were very cautious of making sudden Innovations, but took a Month longer to bring the Patient, by degrees, to his usual Way of living; during which, he observ'd a Regimen of Diet, abstain'd from Wine, and us'd the secondary Decoction for his ordinary Drink.

By this Method, the strong Decoction of *Guaicum*, which is of an acrimonious and aromatic Nature, suffering little or no Alteration from the very small Quantity of Food in the Stomach, flow'd in great Abundance into the lacteal Vessels, exhausted by Abstinence, and, pervading all Parts of the Body with a very free Current, dissolv'd, attenuated, and fused, the Globules of Blood and Lymph, which were harden'd and inspissated by the Virulence of the Contagion; and either alter'd and corrected the obvious contaminated Fluids, or expel'd and eliminated them by Urine or Diaphoresis: The Viscera also, in all their Parts, and the Vessels, being macerated in that acrimonious Lixivium for forty Days together, had all their Obstructions by degrees remov'd, and all Infarctions from adhering Humours insensibly deterg'd; so that the Virulence of the Venereal Contagion being subdu'd and eliminated, the Patients were restor'd to their former Health.

This Method had certainly a good Effect in many Instances in *Hispaniola* and *Spain*; and we are assur'd, by *N. Pelt*, Physician to the Emperor *Charles* the Fifth, in a small Treatise of his of the Cure of the *Lues Venerea* by *Guaicum*, "that the Use of this Decoction, near about one and the same time, cured three thousand Persons, whose Cases were look'd upon as desperate, and who were so perfectly restor'd, that they seem'd to themselves to have receiv'd a new Birth." And I am persuad'd, that the Fame of this Medicine was not a little promoted by the above-quoted *Hutten*, who confesses himself to have been miserably affected with this Disease for nine Years together, attended with most severe Pains, with a Multitude of Exostoses, an ulcerous Caries of the Bones, an extreme Emaciation, and a dangerous Marasmus: He had eleven times, he says, undergone a Mercurial Course to no Purpose; but that after a Multiplicity of tormenting Pains, Anxieties, and Dangers, scarce possible to be conceiv'd, he was at last, by the sole Use of the Decoction of *Guaicum*, for thirty Days together, restor'd to sound and perfect Health.

But in nothing is the World more commonly mistaken, than in passing a Judgment on Novelties. Thus, at first, the Decoction of *Guaicum* was believ'd to be a sure, safe, and harmless Medicine for the *Lues Venerea*, which might be us'd promiscuously without Danger, and therefore it was try'd upon all indiscriminately. But, in a short time, it was found, by sad Experience, that Multitudes, who were of an infirm Constitution, or of an acrimonious, bilious, and hot Temperament, or were naturally lean and dry, or were before affected with a preternatural Heat, or other Disorders of the Lungs, Liver, Kidneys, or, lastly, such as were any way inclin'd to a Consumption, often had the Misfortune, under such a Course as before describ'd, through too much Abstinence, the excessive Acrimony of the Decoction, and the immoderate Sweats, to be exhausted and extenuated to such a Degree, as to fall into an incurable Phthisis. "I have observ'd," says *Pet. And. Matthiolus*, in a Treatise of his *de Morbo Gallico*, printed in the Year 1533. "that Persons of a dry Habit, labouring under the *Lues Venerea*, have, by drinking this Wood, fallen into an hectic Fever, and thence into a Consumption."

In order to prevent such Mistakes, and for avoiding all Dangers, it was thought advisable to mitigate the Severity of this Method. The Patient was therefore allow'd a fuller Diet, the Decoction was made weaker, and the Time for Sweating was shorten'd. But what were the Consequences of this Alteration? To avoid one Error, the Practice ran into the other Extreme; by which means the Virtue of the Remedy was so weaken'd and depress'd, that it was no more found to be effectual for the Cure of the Disease; so that the same *Matthiolus*, in the foremention'd Treatise, complains, "that this Wood had not the same salutary Effects as heretofore, and that most of those who used the Decoction mis'd of their Cure, by the Fault of those who administer'd the same," who imprudently freed their Patients from the severe Restraint of a strict Diet. And thus *Guaicum*, which was at first received with so much Applause, had now begun, in the Time of *Matthiolus*, to lose its Reputation.

Boerhaave has endeavour'd to revive the Use of *Guaicum* in the Cure of Venereal Disorders, in his Preface to the Collection of Authors on the *Lues Venerea*; where he gives it this great Encomium, That it will perform a Cure, where a Salivation has fail'd; whereas, if *Guaicum* fails, it is in vain to try a Salivation.

Besides the Uses of *Guaiacum* in Venereal Cases, it is said, in general, to be hot and drying, and, therefore, a great Promoter of insensible Perspiration, rather than Sweat. Upon this account it is reckon'd a wonderful Sweetener and Cleanser of the Blood, and therefore much prescribed in cutaneous Foulnesses of all Kinds. By the same hot, penetrating Quality, it also is esteem'd good in the Gout, by dissipating, and insensibly wasting, the Humours thrown upon the Joints; as also in Dropsies and Catarrhs, by drying up and wasting the superfluous Humidities. Continual Experience, beyond Contradiction, demonstrates its Usefulness, in all Depravations of the Constitution, which arise from too much Humidity.

ANALYSIS OF GUAIACUM.

Fill a clean glass Retort, almost up to its Neck, with the small Raspings of the best, green, close, ponderous, and fresh *Guaiacum*, with Care to prevent any of it from falling thro' the Neck into the Receiver. Set the Retort in a Sand-furnace; apply a very large Receiver, and lute the Junction close, with a Luting of Linseed-meal. Distil, first, with a Degree of Heat not exceeding that of boiling Water; and continue this carefully, so long as any Moisture will be thereby driven from the Wood. A liquid, tart, and sharply odorous Water will thus come over, which is to be poured out, and kept apart. The Receiver being now, again, luted on, increase the Fire, by slow Degrees; and, again, a considerably limpid, but somewhat more acid, unctuous, and redish Liquor will come over, which must carefully be urged with the same Degree of Heat, so long as it rises. This, also, may be kept separate, as being considerably strong, odorous, and smelling almost perfectly like red Herrings. The Fire, being now raised and kept up, drives over a red, unctuous, and highly acid Liquor, together with a red Oil floating in a considerable Quantity therein: At length increase the Fire to the utmost, that the Bottom of the Iron Pot may begin to be red-hot; there will now ascend a Smoke, and a thick, black, viscid Oil, which sinks to the Bottom of the former Liquor. And if this Fire be continued as strong as the Glass will endure, without melting, the same Fume will constantly continue to rise, how long soever the Fire be kept up. In the last Place, apply live Coals upon the Sand, all round and above the Retort, which is called a Fire of Suppression; and keep this up, also, for some time, till no more Oil comes over. Now suffer all to cool spontaneously, and, by this last Extremity of the Fire, a little very thick, black, and ponderous Oil, like Pitch, will be driven over.

Make a little Filtre of Cap-paper, put it into a glass Funnel, and pour therein the Water which first came over, without any Oil, that the Strainer, being thus well moisten'd, may transmit this pure Water of the *Guaiacum*, which is to be kept separate. This Water will be tartish, limpid, and penetrating, but have little of the Smell or Taste of the *Guaiacum*; but a somewhat burnt Odour, a little resembling that of smok'd Herrings. Then put the second Water into the same Filtre, and this will come through a little redish, transparent, but more acid, and smelling stronger of smok'd Herrings; so as to prove somewhat empyreumatic, and much sharper than the former. And, if any Oil was lodg'd in this second Water, it will remain in the Filtre; which, having been moisten'd by the preceding Liquor, will not permit the Oil to pass. Into the same Filtre pour, likewise, the Vinegar, and third Spirit, together with its light Oil; the Vinegar will immediately pass through red, pellucid, sharp, acid, and empyreumatical, but leave its Oil behind, floating upon the Liquor, in the Filtre: For which Purpose the Filtre must always be kept filling up with more of the oily Liquor, to prevent the Oil from ever touching the lower Part of the Paper; for thus nothing of the Oil will come through with the acid Liquor. When, now, nearly all the Liquor is come through, immediately remove the Funnel, with the Filtre, to another Glass, before the Oil begins to sink through the Paper; which would happen when the Paper begins to grow dry. At this time, therefore, the light and thin Oil may be poured out of the Filtre, into a Vessel apart.

Pour the Oil, which came over last, along with its highly acid, felid, and unctuous Liquor, into the same Filtre, whilst it remains still wet with the former Liquor, there will now come through a red, acid, transparent Fluid; and a gross, black, pitchy, ponderous Oil remains in the Paper: This, also, is to be poured out, and kept separate.

If these acid Liquors be preserved in clean Glasses, they deposit, at the Sides and Bottom thereof, a small oily Crust, which gradually increases, whereby the Liquor gradually becomes less unctuous; whence it appears, that this distilled Vinegar is a Compound of Water, Acid, and Oil, and may, therefore, properly be called a volatile, acid, oily, saponaceous Salt. If this acid Liquor, when become perfectly limpid, and affording no more visible Oil, be poured upon clean Chalk, it effervesces therewith, deposits its Acid in the Chalk, and becomes a Water, which immediately throws the Oil, before latent in it, to the Surface, in a visible Form: Or, if the same Liquor be again distil'd with a gentle Fire in a clean

Vessel, it also presently manifests its latent Oil, and separates it from itself; and thus becomes a pure and clear acid Liquor.

If the Oils be requir'd in greater Perfection, let a Quantity of them be collected, and distil'd by boiling Water; whereby the purer Part will be raised, and the grosser left behind; and, by often repeating this Operation, these Oils gradually come nearer to the Perfection of the essential Kind, and by losing their more unactive and terrestrial Part, become liquid, bright, beautifully red, penetrating, pure, thin, and not ferid. When thus all that is volatile has been drawn over from the Subject, by the violent and long-continued Action of the Fire, extremely black, light, insipid, and almost inodorous, and very brittle Shavings remain in the Retort, being the Coal mention'd by *Helmont*, which can never, by the most continued Force of Fire, be calcin'd into white Ashes, whilst the Vessel remains close, but always continues black, and therefore inflammable; because this Blackness is the fix'd Oil, tenaciously adhering to the Earth, and subtly extended upon its Surface; whence the Coal becomes subject to take Fire, and burn so long as this Oil remains unconsumed: For, if these black Raspings be now put into a large open Pan, and a small live Coal be thrown into the Middle of them, they will immediately burn and flame all over, till the whole Blackness be ignited, after which the Subject presently falls into white Ashes; so that, in a short time, the whole Body of the Shavings may, by means of the smallest Spark, be perfectly converted into Ashes: Nor could the Wood itself be so easily, and so readily, fired with a small Spark, unless, by a like Preparation, it were first brought to a Coal, and then broke to Powder. The white Ashes, thus obtained from *Guaiacum*, are insipid, inodorous, and almost without any Salt; though, if the Wood were recent, they prove considerably rich in alkaline Salt.

In making Decoctions of *Guaiacum*, for medicinal Uses, it is to be remark'd, that the Raspings of the fresh and green Wood are much preferable to those of that which is old and dry; and that, the longer it is boil'd, the better.

TINCTURE OF GUAIACUM.

Take the Raspings of fresh, green, and ponderous *Guaiacum*-wood, or the Bark thereof, in Powder, and put it into a tall chymical Glass; pour thereon rectified Spirit of Wine, so as to float four Inches above it, without any other Addition: Boil them together, in the manner above-mentioned, for four Hours, often shaking the Glass; the Liquor will thus become red, which is to be strained, after it is clarified by Rest, through a linen Strainer, to separate it from any Impurities; then, pouring fresh Spirit upon the Remains, boil them again, and preserve the several Tinctures pure. The Liquor, thus obtain'd, will be of a pungent, aromatic, acrid, hot Taste, and Odour; but if the Alcohol, employ'd, was perfect, the Tincture will always be the better.

If this Tincture, prepar'd with pure Alcohol, be distilled in a tall Body, with a gentle Fire, till only one fourth Part be left behind, this will be a very rich Tincture, fully impregnated with the Virtue of the *Guaiacum*. But if the Spirit employ'd contain'd any Water, the Rosin would begin to fall, if the Tincture was inspissated so high: But when pure Alcohol is used, the Tincture will easily bear to be thickened, and thus increase in Virtue, without growing turbid.

This Tincture of *Guaiacum* being externally applied, is a wonderful Remedy in malignant Venereal Ulcers; whether in the Skin, or Fat, Mouth, Jaws, or Throat.

When this Tincture of *Guaiacum*, prepar'd with pure Alcohol, and inspissated to an half, is mix'd with four times its Quantity of the Syrup of the Five opening Roots, and taken upon an empty Stomach, in the Morning, lying in Bed, it presently distributes itself over the whole Body, which it thus warms, and promotes a copious Sweat; and hence it is commended in the Venereal Disease, when it has seiz'd upon the subcutaneous Parts. *Boerhaave's Chymistry*.

From the Tincture of *Guaiacum*, its Resin is prepar'd, by the Process directed under the Article RESINA.

Besides the common Resin of *Guaiacum*, extracted by Spirit of Wine, another resinous Substance, considerably different from the former, both with respect to Taste and Virtues, may be obtain'd from this Wood, though not by a Maceration with spirituous Menstruums, but by long boiling with common Water; for, when a Decoction of *Guaiacum* is inspissated over a gentle Fire, there remains, at the Bottom, a kind of resinous thick Substance, which is of a balsamic, grateful Smell, of a somewhat acrid Taste, and which, when reduc'd to a fine Powder, and receiv'd into the Nostrils, by stimulating the glandulous Coats, which cover the Bones of the Nostrils, so powerfully colligates and evacuates the Phlegm lodg'd there, that, from long Experience, it appears to me preferable to all the other Errhines I know; for, besides its stimulating Quality as an Errhine, it is also possess'd of a corroborating Virtue, which is highly friendly to the nervous Parts of the Head. *Hoffman. Observat. Phys. Chym.*

The other Species of *Guaiacum* is the

Lignum

G U A

G U M

Lignum Sanctum. Offic. *Guaiacum propensum sine matrice.* C. B. P. 448. Raii Hist. 2. 1686. *Guaiaci altera Species* Monardi, Ger. Emac. 1611. *Palum Sanctum Indiae Occiduae.* Park. Theat. 1587. HOLY WOOD.

This is a solid compact Wood, nearly of the same Smell and Taste as the other, but somewhat more white; and its medicinal Virtues are the same.

GUM GUAIAECUM.

This Gum, or rather Resin, is much of the same Virtue as the Wood whence it is drawn, but more efficacious. It is reckoned much to promote insensible Perspiration, and upon that Account is good in such cutaneous Cases as proceed from Obstructions of perspirable Matter in the miliary Glands. It is very warm and deterfive, and therefore good in all Ulcerations and Gleet, both internal and external. In Gonorrhoeas it is by some almost deem'd a Specific. In the Gout, likewise, it does frequently good Service, not only by deterging and cleansing the Joints and mucilaginous Glands from tartarous Matter, but by warming and strengthening the Fibres, enables them to move with that Vigour, as shakes off and prevents the Lodgment of such Particles upon them.

The Dose, according to Lemery, is from eight Grains to two Scruples.

GUAJANA-TIMBO. The Name of an *Indian* siliquose Plant, mention'd by *Piso*. If impetiginous Eruptions are rub'd with the Juice of the Immature Seeds of the Fruit, or Beans, of this Plant, and this is often repeated, it is said to cure such Disorders.

GUAJAVA. The Guava.

The Characters are;

The Extremity of the Pedicle passes into an Ovary, of an oval Figure, crowned, quinquefid, and like a Calyx. The Flower is rosaceous, pentapetalous, growing on the Ovary within the Crown, and furnished with numerous Stamina. The Ovary is furnished with a long Tube, and becomes a fleshy Fruit, full of very numerous small Seeds.

Boerhaave mentions three Species of this Plant; which are,

1. Guajava. *Clus. Hist. App. 1. Guajabo Pomifera, Indica.* C. B. P. 437. *Xalxochitl, seu Pomum arenosum.* Hern. 84. *Pela.* H. Mal. 3. 31.

2. Guajava; rubra; acida; fructu rotundiori. *H. L.* 305. *Malakka Pela.* H. Mal. 3. 33.

3. Guajava; sylvestris. *Pelou H. Mal.* 3. 35. *Boerb. Ind. alt. Plant.*

The Tree grows to the Height of twenty Feet, or more in the *West Indies*, and has a Trunk as big as a Man's Thigh: In *England* it is preserv'd in Stoves, and is rarely seen above six or seven Feet high. *Miller's Diet.*

The Fruit resembles our Pears, with an Umbilicus full of Chaps, and cover'd with a thin whitish green Rind. The Pulp is of a pale bloody Colour, in some whitish, and, when ripe, of a sweet and grateful Taste, and a pleasant Smell. The Fruit has three different Sorts of Taste, according to its Season. In the time of its Ripening, before it is soft and yellow, it is austere and astringent, and is then good, when boil'd, for the Stomach; when it becomes a little riper, it is of a middle Nature, and in its best State; but it is more advisable for Health to eat it either boil'd or preserv'd in Sugar, than raw; besides, it is of a more grateful Taste and Smell, when thus prepar'd. When it is come to perfect Maturity, and is entirely soft and yellow, it has the Taste and Smell of Raspberries, loosens the Belly, and is not so wholesome to be freely eaten, because it is easily corrupted, and breeds Worms. The Root with its astringent Bark, boiled in Water, and drank, is an excellent Remedy for the Dysentery, where Astringent and Strengthening are indicated. The Leaves are acid and astringent, and proper to be us'd in Bathing. *Fr. Hernandez* adds, that the Leaves us'd in Lotions cure the Itch, and that a Decoction of the Bark is good for swell'd Legs, that it cures fistulous Ulcers, helps Deafness, and removes Pains in the Belly: A Syrup, also, made of the Leaves, is very effectual against a Flux of the Belly. *Raii Hist. Plant.*

The Fruit is refrigerating, and somewhat astringent: The Roots are astringent, and therefore good for the Dysentery, and to comfort the Stomach: The Leaves are vulnerary, resolvent, and used in Bathing. *Hist. Plant. ascript. Boerb.*

GUAIBI-POCACA-BIBA *Brasilensis* *Pisonis & Marcgrav.* *Arbor siliqua tortuosa putrescente, Fraxinella foliis.* It is the Name of an *Indian* Tree, whose Root is furnish'd with a yellowish-white Pith, to which some medicinal Virtues are attributed. Thus they peel off the external thin Skin, cut the Pith into Slices, and infuse them in Spring-water, for one Night, in the open Air. This Water, when drank, is said to provoke Urine, to be beneficial in Obstructions of the Kidneys and Bladder, and to cure a Gonorrhoea without any other Medicine. The fresh Juice of the Bark, dropt into the Eyes, cures the Inflammations thereof.

GUAUUMBI. The Name of a small *Indian* Bird, call'd by the *Portuguese*, *Pegafrol.* It is said, that this Bird powdered, and taken in Wine, relieves the *Sciatica*.

GUANABANUS *Ovied.* A Species of *Indian Anona*, to which no Virtues are attributed, except that the Fruit is said to be cooling.

GUAO. The Name of a *West Indian* Tree, call'd also *Thetlatian.* The Juices of this Tree are extremely acid, inso-much that it is not safe to sleep under it. The Wood is firm and hard, but so poisonous, that those who work it, contract a Swelling of the Hands and Face, which lasts for some Days. *Lemery des Drogues.*

GUAPARAIBA. *Pison.* *Mangle Pyri foliis, cum siliquis longis, Ficui Indicae affinis.* J. B. *Pareturier* *Rocheport.* THE MANGROVE-TREE.

This is very common in the *West Indies.* The Root, which is soft and moist, if slit and toasted, and apply'd to the Punctures made by the poisonous Fish, call'd *Niqui*, eases the Pain caus'd thereby, and preserves the Limb affected. This Remedy was discover'd by the Fishermen. *Raii Hist. Plant.*

GUAPERIBA *Brasilensis.* *Marcgrav.* The Name of a Tree which grows in *Brasil.*

GUARIQUIMYIA. The Name of a Shrub, which grows in *Brasil*, like Myrtle. The Seed is said to be good against Worms in the Intestines. *Lemery des Drogues.*

GUARERVA. A sort of Cucumber, which grows wild in *Brasil.* *Raii Hist. Plant.*

GUASSEM. Certain black, and, as it should seem, scorbutical Spots, mention'd by *Avicenna.*

GUAVIL. A Species of Sea Lizard.

GUAYAVA. See **GUAJAVA.**

GUAZUMA, *Bastard Cedar-tree.* *Miller* mentions three Species of this Tree, to which I find no medicinal Virtues attributed.

GUIDONIA. The Name of an exotic Plant.

Boerhaave mentions but one Species of this Plant, which is,

Guidonia; Ulmi foliis; flore roseo. Plum. N. G. A. 4. Arbuscula, facie Ulmi, Aethiopica, ramulis alatis, floribus purpurascens. H. A. 1. 165. *Boerb. Ind. alt. Plant. Vol. 2.*

There are no medicinal Virtues attributed to this Plant, that I know off, at present.

Miller takes notice of five Species.

GUIRAPARIBA *vel Urupariba Brasilensis.* *Marcgrav.* *Arbor Brasilensis folio ramoso, floribus magnis, pentapetalis flavis.* A Name for two Trees, which grow in *Brasil*; one of which is a sort of Ebony. *Raii Hist. Plant.*

GUILTY-IBA, *Pison. & Marcgrav.* *Arbor pomifera Brasilensis, fructu maximo, osculo ligneo.*

The Name of a Tree, which grows in *Brasil*, the Fruit of which is call'd *Guity Coroga*, and contains a Stone as large as a Goose's Egg, inclosing a Kernel, which, grated, and given in the Quantity of a Dram, is said to be good in a Dysentery. And an Infusion of a double Quantity of this Kernel is reported to be excellent in stopping all sorts of Hemorrhages. There are two other Trees call'd by this Name. One is the *Guity Toroba*; the other is the *Guity-iba*, the Kernels of which have the same Virtues attributed to them.

GULA. The Gullet, or *Oesophagus.*

GUMA, in Chymistry, is Mercury.

GUMMA. A sort of Venereal Excrecence on the Periosteum, of the Consistence of Gum. See **NOBIS.**

GUMMI. Gum. A concreted vegetable Juice, which transudes through the Bark of certain Trees, and hardens upon the Surface. The Chymists only allow those to be properly Gums, which are dissolvable in Water; those which are only dissolvable in Spirit they call Resins; and those of a middle Nature, Gum-resins. *Geoffroy* says, that Gums are something between Acid and Oil; being an acid Salt so fix'd in Earth, as that the greatest Part of it is changed to an Alkali, the other into Oil; so that the Mixture arising from thence is an oily Salt, resembling the saponaceous Concretes of the Chymists, made of Oil of Olives, and a Lixivium of Tartar, or he mucilaginous Bodies form'd of Spirit of Wine, and the volatile Spirit of Urine. And thus we see, that all Seeds which are oily when ripe, are in the Beginning only a Mucilage, or imperfect Oil. *Geoffroy.*

In the ancient Writers (*γύμμι*) *Gummi*, put absolutely, imports Gum Arabic.

| | | |
|-------------------|-----|-------------------------------|
| GUMMI AMMONIACUM | See | AMMONIACUM. |
| GUMMI ANIME | | ANIME. |
| GUMMI ARABICUM | | ACACIA. |
| GUMMI CARANNA | | CARANNA. |
| GUMMI CERASORUM | | CERASUS RUBRA. |
| GUMMI COPAL | | COPAL. |
| GUMMI ELEMI | | ELEMI. |
| GUMMI GUAIACI | | GUAIAECUM. |
| GUMMI HEDERÆ | | HEDERA ARBOREA. |
| GUMMI JUNIPERI | | JUNIPERUS VULGARIS PRUTICOSA. |
| GUMMI LACCA | | JUJUBA INDICA. |
| GUMMI SENEGALENSE | | ACACIA. |
| GUMMI TACAMAHACA | | TACAMAHACA. |
| GUMMI TRAGACANTHA | | TRAGACANTHA. |
| | | GUNDELIA. |

GUNDELIA. The Name of a Plant, so call'd from Dr. *Gundelshaimer*, who found it, in his Travels with the celebrated *Tournefort*.

GURGEATIO. A Name for the *SUDOR ANGLICUS*.

GURGULIO. The *UVULA*. It is, also, the Name of an Insect, call'd a Weevil.

GUSTUS. The Taste of sapid Substances; or the Organ of Taste. Upon the Tongue, especially towards the Apex and Sides, under the Skin, are obtuse Papillæ of various Figures. These Papillæ are prominent in the Tongue of a live and fasting Person when put out, and applied to any Body to be tasted. In dead Persons they absolutely disappear; but are, in a particular manner, prominent in hungry Persons. They arise from the nervous Body covering the muscular Flesh of the Tongue. Whence they pass through Perforations of the *Corpus reticulare*, in the same manner as in the Skin, and are cover'd with small Vaginæ, form'd by the exterior Membrane of the Tongue. By means of these small Vaginæ, they are defended against the Roughness, the Acrimony, and the Heat of the Aliments. These Vaginæ are, also, porous, and prominent, that the Meat and Drink may, by Pressure, have the greater Influence upon them.

It is obvious, that such a Number of Papillæ may arise from the ninth Pair of Nerves, convey'd to the Tongue alone, and distributed through it; and that a Ramification of the fifth Pair is subservient to its muscular Motions, which Office it performs in some other Parts of the Body.

Laurentius Bellini has shewn, by ingenious and accurate Experiments, that these Papillæ form the Organ, to which when sapid Objects are applied, they excite the Ideas of Taste; and that the other Parts of the Mouth, Tongue, and Palate, contribute nothing to the Production of this Effect, except, perhaps, those Parts of the internal Cheeks, which lie near the Meeting of the *Dentes Molares* in both Jaws.

That Substance, in Vegetables and Animals, from which a Salt, and an Oil, may be extracted by Art, whether by itself, or mix'd with any other Substance, is the true Object of Taste; so that Salt, Soap, Oil, and Spirit, must, of course, be so too. The same holds true in fossile Substances also.

The Ideas of Taste are, therefore, excited, if the Matter to be tasted, being attenuated, for the most part dissolv'd in the Saliva, warm'd in the Mouth, applied to the Tongue by the Motion of the Mouth, insinuating itself into the Pores of the membranaceous Vaginæ, and penetrating to the Surface of the Papillæ lodg'd there, so affects and moves them as to convey this Motion to the common Sensory, and excite in the Mind the different Ideas of saline, acid, alkaline, sweet, vinous, spirituous, bitter, aromatic, hot, acrid, austere, or any Composition and Mixture of these.

Hence the Reason is sufficiently obvious, why so different Tastes are excited by one and the same Object, according to the Diversities of Age, Temperament, Diseases, Sex, Custom, and other Substances previously apply'd to the Organs of Taste; as also why highly sapid Substances are nearly allied to those of the dolorific kind, such as saline, aromatic, and spirituous Substances, when applied to bare Nerves, or an excoriated Tongue; why sapid Substances are speedy Restoratives, and why Water, mild Oils, and Earth without any Salt, are insipid, and without Taste.

GUTTA. A Drop. But an Apoplexy is sometimes call'd *Gutta*, from a whimsical Supposition, that it was by a Drop of Blood falling from the Brain upon the Heart.

GUTTA GAMBA. See *CAMBOGIUM*, *CARCAPULA*, and *ESULA INDICA BONTIUS*.

This Gum hath been longer known in Painting than in Medicine, for its yellow Colour. The Violence of its Operation, both by Vomit and Stool, has occasion'd abundance of Search for some proper Corrector; but none has yet been found better than the lixivious Salts, and particularly Salt of Tartar. *Monsieur Boulduc*, who has been industrious this way, and communicated his Experiments to the *Academy of Sciences*, upon many of the most efficacious medicinal Simples, in the *Memoirs* for 1701. has a Dissertation upon Gamboge. He says, that it ought to be reckon'd amongst the resinous Juices, since it is inflammable, and will flow in the Fire, and be almost entirely dissolv'd in Spirit of Wine; but, on the contrary, in aqueous Menstruums, spreads itself into a milky Substance like Scammony, and afterwards precipitates: It seems, at first, to be insipid upon the Tongue, but soon after becomes sensible in the Throat by its Acrimony, and an insupportable Drought. It is a powerful Hydragogue and Emetic, but ought to be us'd with Caution, and not until it has been corrected. *Monsieur Boulduc* says, he endeavour'd to get Flowers from this resinous Juice, like those from Benjamin, but without Success. He made Trial on it with Spirit of Wine, a Lye of alkaline Salts, and Water: The Spirit of Wine dissolv'd all, except about a sixth Part; the Remainder, which the Spirit would not touch, was easily dissolv'd by a Solution of Salt of Tartar. This, says he, may be esteem'd the saline Part of

Gamboge; and, tho' it had no purgative Virtue, was very diuretic. The Resin, which was made by the Spirit of Wine, purg'd more violently, and with greater Irritation, than the Gamboge itself.

This Gum was entirely dissolv'd by an equal Quantity of Salt of Tartar, and a sufficient one of boiling Water, excepting some few terrestrial Parts. The Liquor filtrated, and evaporated by a gentle Fire, gave a sort of grey Salt, which easily flow'd in the Air, if not kept close stop'd in a Phial. This saline Extract purg'd with less Irritation, and in a smaller Dose, than the Gum; but caus'd a great Acrimony and Heat in the Throat, insomuch that it was intolerable, and ought, therefore, to be enveloped in some other convenient Substance when it is given.

This Gentleman observ'd before, that Water would not dissolve it, but only made it flow into a milky Substance of a yellow Colour, which soon precipitated, and left the Water clear above it. This Residue, dry'd, differ'd in nothing from the Gum, only was more pure. By casting distill'd Vinegar on this milky Substance, it became clear; Oil of Vitriol, on the contrary, made it again turbid; and Spirit of Wine gave it a golden Colour. There are many Ways, this Author observes, of correcting it, but he thinks that by alkaline Salts the best. However, he gives one of his own, which, as it is different from any other hitherto us'd, he also continually practis'd it with Success. The Manner is, by tying the Gum in a Rag, and putting it into a hot Loaf, as it comes out of the Oven, where it must remain for twenty-four Hours; afterwards it is to be powder'd, and this must be repeated four or five times: By this Management, he says, he always found it freed from its great Violence, as well purgative as emetic. He farther observ'd the Crum of Loaves thus us'd to have both a purgative and emetic Quality.

From this Account, it is not difficult to determine the Qualities of this Drug, wherein its Efficacy consists, and the most advantageous Means of managing it in Prescription; tho' it does not clearly appear what way of Reasoning directed the Author to the Loaf of Bread, because it has no relation to the Means made use of in other Trials; nor is it easily to be accounted for, how such a Method made it of a milder Operation. It is a powerful Hydragogue, and therefore good in Dropsies, and all watery Corpulency tending thereunto. But its Roughness requires the utmost Caution and Skill in its Exhibition. It is a fit Purge only for grown Persons, and those of a strong Constitution. With all the Care possible, it will frequently vomit, before it passes downward. The most convenient Form to give it in, is a Bole, or Pills; for no Menstruum will equally draw out all its Qualities by Dissolution. It will not well powder without some Portion of a lixivious Salt, or fine Sugar; and such are its best Correctors, by dividing its resinous Parts, and preventing their Adhesion to the Membranes in too forcible a manner. In several Intentions, which are most conveniently answer'd by the urinary Discharges, that particular Management of *Monsieur Boulduc's*, which divested it of its purgative Parts, and left only the saline, which were very diuretic, may be worth putting in Practice.

It purges very well in the Quantity of four Grains; but from six to eight Grains, it purges and vomits violently. It is reckon'd particularly serviceable in Dropsies, by evacuating the watery Parts of the Fluids; and, as it has no Taste, a very small Dose of it, such as a Grain or two, dissolved and mixed with Sugar, is very fit for Children. It is worthy Observation, that tho' this Gum is so very purgative, yet the Fruit of the Tree, to which it belongs, is perfectly harmless, and is eaten in the Country like Oranges.

Lemery says, the Dose is to twelve Grains; and *Quincy* informs us, that a Scruple is the extreme Dose, in the most robust Constitutions.

There are many Opinions concerning the Generation of this Gum: Some will have it to be natural, others sacitious; some refer it to the *Esula*; *Bontius*, to an *Indian* Plant, near akin to the *Esula*; others, to the Flowers of the *Indian Ricinus*, and its Colour to the *CURCUMA*; and some again endeavour to derive it from the *Tithymalus* and *Scammony*.

We take it to be the concreted Juice of the Trees above-mention'd. But, as *De Syen*, in *Annos. ad Hort. Malab. Tom. 1.* observes, this Gum *Gutta* here describ'd, must not be confounded with the common Gum, which *Bontius*, in *Hist. Nat. & Med. Ind. Orient.* affirms to be collected from the Plant akin to the *Indian Esula*, and call'd, by the *Indians*, *Lonan Cambodia*, because it is plentifully produc'd in *Cambodia*, a Country bordering upon *Indostan*. *Dale*.

GUTTA ROSACEA. A red or pimpled Face.

I am inclin'd to believe, that those who have attributed this Disorder to some Intemperance of the Liver, are not much mistaken, because we frequently observe in Practice, that the Disappearance of fiery Pimples in the Face is succeeded by Indurations of the Liver, and from thence Dropsies; and, on the contrary, that Disorders of the Liver are reliev'd by co-

pious

pious Eruptions of these fiery Pustules of the Face. And this should caution Practitioners against applying Topics, without the utmost Care, to these Eruptions.

It is called *Gutta Rosea*, or *Rosacea*, from the little red Drops, as it were, or fiery Tubercles, dispersed up and down the Face and Nose: By some *Rubedo Maculosa*, or rather *Ruber cum Maculis*; by which the Parts of the Face are sometimes so overgrown, as to render the whole Countenance horribly frightful.

Nicolaus Florentinus constitutes three Degrees hereof; such as, 1. *Rubedo simplex, seu Facies rubra*; 2. *Rubedo pustulosa*; and, 3. *Ulcerosa*; and deduceth the Cause from a hot, but viscous and thick Blood, generated by some Intemperies or Vice of the Liver, which, being brought by the Capillary Arteries to the Surface of the Skin of the Face, is there diffus'd, as happens in Blushing; but, by reason of its Lentor, or Clamminess, not being return'd, as it ought, presently by the Veins, stops therein, and causes Redness, which neither yet being capable of being diffus'd, by reason of the Density of the Cuticle, raises the same up into Pustules, and at length ulcerates, having vitiated the Frame of the cutaneous Glandules by its long Stagnation.

The diagnostic Signs are evident to the Eye, better than by Description.

The prognostic doubtful as to Cure, tho' not as to Danger otherwise.

If the Disease be recent, mild, and in a good Habit of Body, the Cure is hopeful: If of long standing, inveterate, or malignant, scarce attainable, or at best, palliative.

It is certain, be the Case as it will, it does not always owe its Original to hard Drinking; since it is sometimes observ'd to attend the most Temperate and Abstemious. However, for the most part, the constant Tipplers of strong Beers, Wines, and Waters, but especially the two first, are usually the most obnoxious to this Malady. For the Removal whereof, the Intemperature of the Liver, and other Viscera, is to be corrected, and all other Obstructions remov'd, whilst, at the same time, the Humours are diverted from the Parts affected, by Bleeding, Blistering, Cupping, Issues, with lenient Purgatives frequently repeated. The Diet must be moistening and cooling, taken from Foods easily digested, avoiding Wine, unless well diluted, and strong Drinks, all Things spiced, potted, powder'd, season'd, or salted: The Drink may be an Emulsion of the cold Seeds, Milk and Water, clarify'd Whey. Lettuce, Purslane, Sorrel, and Spinage, are here frequently directed with their Meats; and, indeed, the whole Physical Regimen strikes in with that for the Erysipelas, Itch, and Scurvy.

In the Use, however, of this cooling and contempering Method, great Prudence is requir'd: For if you take a Person off at once from his strong Liquors, and allow him nothing but Whey, or Milk and Water, you may likely remove his red Face, and Life soon after, by hastening a sudden Decay of Heat, palling his Appetite, and bringing on a Leucophlegmatia, or Dropsy. *Mayer* allows Wine diluted, and even Wine by itself, if moderately taken, on account of its Heat and Tenuity being better fitted to digest and attenuate the gross and viscid Humours, and promote the Perspiration of the same through the Skin, than Water, which is often found injurious and pernicious to such Patients, by its Coldness fixing the already impacted Humour upon the Part.

As for what concerns Topics, much Caution, likewise, is to be used: For, according to *Sennertus*, if there be only Redness without Pustules, and the Disease recent, Refrigerants and Repellents take place: But, if Pustules attend, Discutients must be mix'd; and if those Pustules seem hard, and the Disease of long Standing, there may be Reason for Emollients to ripen and digest the tough and viscid Matter, and after, to let the same out upon Occasion, before we use desiccative, or drying and repelling Medicines; which, if at this time apply'd, would only increase the Induration of the Tubercles, fix the Humours more deeply in the Skin, and render the Disease still farther obstinate.

If the Disease be stubborn, and the Tubercles grown hard, we are to begin with Emollients, both Fucus and Ointment; such are the Decoction of Mallows, Vervain, Solomon's Seal, and Linseed: Also, a Cerate of Sperma Ceti, or *Bates's* white Cerate.

Those which suppurate, and rise with Heads, must be empty'd of their Matter, and the Remains of the Humour disposed for Breathing out with the same Medicines mix'd with Discutients, as the Flowers of Elder, Rosemary, and Broom: In the Use of these latter, however, let the Artist have his Eye to the Part, and see, that by their warmer or more tenuous Particles, the Fluxion be not increased.

Sir *Theodore Mayer*, in his Regimen for my Lord *Maxwell*, subject to these exanthematous Pustules, attended with a red Nose, after taking notice, that it was hereditary to the Family, the Brothers and Sisters being subject thereto, lays the Fault principally on the Liver, which, he says, was very hot, his Blood vaporose, impure, abounding with adust earthy *Fæces*, attended with a bilious Temperament.

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In order, therefore, to the Removal of the Disease, he says, the over-hot Blood must be temper'd, and the Intemperature of the Bowels, especially, corrected, that a more laudable Blood may be generated; for which Purpose, and to alter, as it were, the whole Substance of that Bowel tainted, as well as to preserve the native Salt and Balsam pure and uncorrupted, he lays a mighty Stress upon Antimony, and its Preparations, as the Spirit, Salt, fix'd Substance, as the diaphoretic or the fix'd Flowers of Antimony, (of which *Mind* was *Sylvius*, and several others, who direct the diaphoretic Antimony, not only inwardly, but use the same in Ointments, and account it one of the best Cosmetics in the Case before us) which have the first Place in depurating the Blood, and correcting its Dyscrasies. Next to this he subjoins Mercurials to purge with, which are proper to convey away the salt and tartarous Humours out of the same, separating also the viscous, impure, and seculent, and carrying them off by Stool; although they do not (continues he) so powerfully operate by the Emunctories of the Skin.

The Simples he lays down to alter and edulcorate are these, Dodder, Fumitory, Adders-tongue, Hops, the cordial and refrigerating Flowers, and *Veronica rubra*.

Also the Tincture of Tartar, Oil of Sulphur and Vitriol, Broths of the hepatic Plants with Cream of Tartar, and Sal Prunellæ, than which nothing is more powerful to refrigerate, and hinder the Afflux of Humours, and take off their Heat and Ebullition; and these are to be continued for a Week or ten Days.

For the same Purpose he directs, also, an hepatic and splenic Apozem for three Doses, being render'd purgative with Sena, Cassia, Manna, Rhubarb, solutive Syrup of Roses, and Fumitory, betwixt whiles; purging, moreover, with a Scruple of Calomel, made up with some purging Electuary.

Every Spring he orders a Vein to be open'd in the Right Arm; in Autumn, in the Left.

For twenty Days together he gives Whey, clarified with Fumitory, Succory, and the Juice of Apples; also Tinctures and Julaps of the like Nature, edulcorated with Syrups made from the Juices of the said Plants; and, sometimes, a small Ale, with the more temperate Antiscorbutics infus'd; and, through the whole Course, a most exact Regimen of the Non-naturals.

When the Body is costive, a Clyster must be injected, which if frequently repeated, an excellent Revulsion is thereby made of the Humours to the lower Parts.

As to the Surgery, he prescribes Cupping-glasses, set frequently to the Nape of the Neck, between the Shoulders, with Scarifications; Leeches, behind the Ears, and on the Inside of the Nostrils; also the Veins under the Tongue to be open'd.

Hence we may see what Care or Caution is necessary to be us'd, to provide against the Disease, whilst forming, by rectifying and altering the whole Temperament, and striking at the Source, or Root, before we take notice of that already form'd, or which is already thrown out by Translation to the Surface.

For whoever goes about, by cooling, or repelling, or, indeed, any other local Applications only, to cure this Infirmary, is in great Likelihood, by striking in, or otherwise retarding, those impure Feculences, which are here thrown forth as by some proper Emunctory, to kindle in the Blood some dangerous feverish Ebullition; or, by the same Humours now detain'd, or pent in, to suffocate the vital Flame at the Focus, or Fountain-head, whilst we are endeavouring to put out that in the Face.

The Topics order'd for this Nobleman, were, first, a Sweat for the Parts affected, holding his Head, cover'd about, and receiving the warm Steam of a Decoction of Bran, Soapwort, Melilot, Nettle, Chamomile, Ground-ivy, and the greater Celandine, in Milk and Water, to be us'd for an Hour in the Evening, taking none, or a very little light Supper before upon those Nights, and to avoid the cold Air above all things, at such times.

This was repeated once a Week; whilst, in the mean time, the Pustules were dress'd with an Ointment of Cerus, and white Diachylon, adding a little white Precipitate, or Calomel, for the more stubborn and obstinate, whilst the lesser and milder are touch'd with a Nodulus, wherein were inclos'd Salt of Lead, Camphire, burnt Alum, Borax, and Sal Prunellæ, made wet in Water of Frog-spawn, and Water-lily. Or,

With Water of Frog-spawn, and Phlegm of Alum, let a Mucilage be extracted from the Seeds of Flea-bane, and Quinces; and, by an Addition of the preceding Spices, form a Liniment, to be applied to the Pustules.

Or,

With strong Vinegar extract the Mucilage, and, adding Flowers of Sulphur, form a small Poultice, to be applied

G U V

all Night ; and in the Morning let the Face be wash'd with Myrrh-water. When the Disorder is highly obstinate, says the Author, Mercurials are beneficial ; but they are cautiously and rarely to be used, lest they should injure the Teeth, or procure a fetid Breath. *Noduli*, also, consisting of *Mercurius Dulcis*, and Lead, are to be express'd upon the Pustules.

But I have frequently done good Service with some of the less pompous, and more easily prepar'd Remedies ; as the Salt of Tartar, Salt-petre, and Salt of Lead, mix'd up with some Pomatum, or dissolv'd in a suitable Menstruum, adding sometimes a little White-wine, and Juice of Lemons ; the White of an Egg, shak'd up with a little Powder of Alum, or beat up well with a few Grains of Sublimate and Camphire ; also, Oil of Myrrh per Deliquium, prepar'd by boiling an Egg hard, taking out the Yolk, and filling up its Place with Myrrh ; then binding the divided Sides together, and setting it in a moist Cellar, that the Liqueur may drop forth, which is an excellent Cosmetic : For this Purpose, also, is the *Unguentum Faciale* of Bate. *Turner de Morbis Cutaneis*.

Many other Topics might be here specify'd, but I look upon them all to be more or less dangerous ; and that, for this Reason, it is better to abstain from them. The Cure is more safely perform'd by a proper Course of Mercurial Deobstruents, which must be succeeded by a due Use of alterative Mineral Waters ; such as those of *Scarborough*, *Holt*, or *Rhode*. Or, perhaps, a long-continued and copious internal Use of the saponaceous and solvent Juices of Summer Fruits, perfectly ripe, will be more effectual than either.

GUTTA SERENA. See AMAUROSIS.

GUTTALIS. The same as ARYTÆNOIDES.

GUTTETA. *Castellus* informs us, that *Goutte*, in French, among other Significations, imports Convulsions. Hence a particular Powder, calculated against Convulsions, and nervous Disorders, is call'd *Pulvis ad Guttetam*. It is thus prepar'd :

Take of white Dittany, Missero of the Oak, Contrayerva, Virginian Snake-root, and Male Peony-root, of the Male Peony-seeds, of burnt Hartshorn, and Elks-hoof, each two Drams ; of wild Valerian-root, one Ounce ; of red Coral, and human Skull, of each three Drams ; of lacyanth-stone, one Dram ; of Occidental Bezoar, one Dram and an half ; of the Oriental, one Scruple : Mix them into a Powder ; to which may be added, at Pleasure, of Musk, five Grains ; and, of the Leaves of beaten Gold, N° 30.

This was first prescribed by *Riverius*. It is given to both Children, and grown Persons, from ten Grains to half a Dram for Children, and to one Dram to grown Persons.

GUTTUR. The LARYNX, or ASPERA ARTERIA.

GUTTURIFORMIS *Cartilago*. The Arytænoide Cartilage.

GUTTUS. A barbarous Name for a Vessel contriv'd to hold Oil in such a manner, as to let it drop upon a Person. It was used for this Purpose after Bathing.

GUVAVIRAP *Brasiliensum*. De Lact. The Name of a very tall and large Tree, which bears a Fruit like Gooseberries. *Rai Hist. Plant.*

G Y R

GUYTIS. See GURRY.

GYION, γυιον. It imports the whole Body ; and, in the plural Number, the larger Limbs.

GYMNASION, γυμνασιον, from γυμνός, naked. Exercise ; or the Place where Exercises were perform'd.

GYMNASTICA. Gymnastics. That Part of Medicine which teaches the Method of preserving and restoring Health by Exercises. See FIBRA. The different Species of Exercises are specify'd under the Articles of their Names.

GYMNOCRITHON. A Name for the *Triticum*, *Spica Hordei*, *Londonensis*.

GYMNOSPERMOS. See ANGIOSPERMOS.

GYNÆCIA, γυναικεία, from γυνή, a Woman. It signifies the *Menstrua*, and sometimes the *Lochia*.

GYNÆCIUM, γυναικείον, from γυνή, a Woman. An Apartment for Women, now usually call'd a Seraglio. But *Gynæceum*, also, signifies Antimony, probably from the Use Women made of it, in tinging the Cilia ; a Custom which prevails much in the East at this Day.

GYNÆCOMASTON, γυναικομαστόν. An enormous Increase of the Breasts in Women. *Galen*.

GYNÆCOMASTOS, γυναικόμαστος. A Man whose Breasts are large and turgid, like those of Women, is thus called. There are some few Instances where the Breasts of Men grow to an enormous Bulk, and even afford a Fluid not unlike Milk, and Persons thus affected are said to be utterly impotent.

Paulus Ægineta, L. 6. C. 46. says, that the Breasts of Men, as well as those of Women, swell at the time of Puberty, but generally subside again. Sometimes, however, after they have begun to swell, they increase in Bulk, being more and more elevated, and Fat growing underneath. Since a Man, therefore, in such a Case, incurs the Scandal of Effeminacy, it is natural to require the Help of the Surgeon.

In the Operation, he says, we first make an Incision, in the Fashion of a Crescent, in the lower Part of the Breast ; then separating the Skin, we take away the Fat, and unite the Lips of the Wound with a Suture. If the Breast, by reason of its Bulk, hangs downwards, as in Women, it will be proper to make two such Incisions, meeting one another at the Extremities, so as that the less may be comprehended within the greater ; after which we separate the intermediate Skin, and, taking away the Fat, secure the Wound with a Suture, as before. If the Operation happens to be imperfect, and, by Mistake, we cut away less than is requir'd, we renew the same, and take away what remains redundant ; then sew up the Place, and apply such Medicines as are appropriated to Wounds. Thus *Ægineta*.

GYNÆCOMYSTAX, γυναικομύσαξ, from γυνή, a Woman, and μύσαξ, a Beard. The Hairs on the Female Pudenda.

GYNANTHROPOS. A Species of *Hermaphrodite*, which partakes more of the Female than Male ; whereas that Sort which partakes most of the Male is call'd *Androgynus*.

GYPS, γύψ, in Zoology, is the Vultur.

GYPSUM. See ALABASTRUM.

GYRIS, γύρις, fine Meal. It agrees with *Amylum* in Virtues, but is somewhat hotter. *Paulus Ægineta*, L. 7. C. 3.

GYROFALCO, in Zoology, is the Giffalcon.

H.

H In the Chymical Alphabet, signifies the pure Sun, or Gold.

HABASCUM. The Name of a Root, which grows in *Virginia*, and serves the Inhabitants for Food. It is of the Figure and Size of a Parsnip, and is esteem'd aperitive. *Lemery des Drogues.*

HABENA. The Name of a Bandage, contriv'd to keep the Lips of Wounds together, and supply the Place of a Suture.

HABITUDO. Habitude. The same as **CATASTASIS**.

HABITUS. Habit. It imports the settled and permanent Constitution or Habitude of the Body, or of any thing else; or the Structure or Composition of a Body, or the Parts thereof: Thus a Body is said to be of a dense, thin, solid, compact, or lax Habit. It, also, imports a fix'd and settled Custom or Habitude of doing any thing. See **HEXIS**.

HACUB, sive silybum quibusdam. J. B. An exotic kind of *Carduus*, much resembling the Carline Thistle, only larger. The *Indians*, as *Lemery* informs us, eat the young Shoots, or *Asparagi*. An Infusion of the Root provokes Vomiting, and produces a Nausea, and Inappetency.

HADID. Iron. *Rulandus.*

HÆCCEITAS. A Name for the *Quinta Essentia*, of the Chymists.

HÆMA, αἷμα. Blood. See **SANGUIS**.

HÆMAGOGOS, from αἷμα, Blood, and ἄγω, to bring away. The Name of an Antidote in *Nicolaus Myrepsus, Sect. 1. Cap. 26.* It is principally intended for provoking the menstrual and hæmorrhoidal Fluxes, and consists of aromatic and ferid Simples, with black Hellebore, some other Simples, and Honey.

HÆMALOPS, αἱμάλωψ, from αἷμα, Blood, and ὤψις, the Countenance, properly signifies the livid Marks of Sugillations in the Face and Eyes; but thus *Hippocrates* calls the black, thick, and feculent Blood, which overspreads the Chorion in the Formation of the Fœtus, and is rejected by the Fœtus, as of no Use, and discharged into the Space between the Uterus and Chorion, the thinner and purer Part of it only being attracted for Aliment. *Galen, Lib. adversus Lycum*, explaining the following Passage of *Hippocrates*, (περὶ φυσ. παιδίου) καὶ ἀπὸ τὸν ὕμιν αἱμα ἐξωθεν αἱμάλωψες, "round the Outside of the Membrane were grumous Collections of Blood," says that some soft and unshaped Flesh, resembling a Clot of Blood, receives the first Form of a Fœtus, which has on it something like *Hæmalops*, (as *Hippocrates* call'd it) which it received from the Substances of the Seed, being white in itself. *Hæmalops, αἱμάλωψ,* in *Erotian*, is expounded a bloody kind of Circle or Suffusion of Blood, proceeding generally from a Blow, round the Cornea Tunica. *Hæmalops* is also a Species of Sugillation, and signifies a Suffusion of a bloody Aspect from Blows, not only in the Eyes, but in any Part of the Body. αἱμάλωπος πύσις ἐν θρυγώδης, in *Coac.* is "A Spitting of concentered, but not feculent Blood."

HÆMANTHUS, from αἷμα, Blood; and ἄνθος, a Flower. The Blood-flower, or *African Tulip*.

Boerhaave mentions three Species of this Plant; which are,

1. *Hæmanthus*; *Africanus*. *H. L. H. A. 2. 127.*
2. *Hæmanthus*; *Africanus*; bulbo alio, squamoso.
3. *An Hæmanthus*; bulbo oblongo, squamoso, ex binis, semper complicatis, quasi foliis constans? *Ind. alt. Plant. Vol. 2. p. 149.*

No medicinal Virtues are attributed to any of these.

HÆMATIA, or HÆMATION, αἱματιά, or αἱματάσιον. An Epithet of a sort of *Garum*, made of the Intestines of Fish, macerated in Salt.

HÆMATITES. *Offic. Calc. Mus. 269 Worm. 64. Dougl. Ind. 42. Aldrov. Mus. Metall. 646. Boet. 386. De Lact. 122. Charlt. Foss. 27. Hæmatites verus, Schw. 30. Lapis Hæmatites. Matth. 1381. BLOOD-STONE.*

Lapis Hæmatites, λίθος αἱματίτης, of the Greeks, Sedenezi and Sadanegi of the Arabians, is a ferrugineous, hard, glebous, ponderous, metallic Substance; of a dark-red or yellowish Colour, and sometimes blackish, or of the Colour of Iron; and of an earthy attringent Taste. Being broken, it shews fine, long, sharp Fibres, like those of Wood. It was called *Hæmatites*, in *Greek*, from its Colour; or, because it is endued with the Virtue of stopping Blood.

Pliny distinguishes five Kinds of Blood-stone, according to the Countries where they are found, and their differing Colour and Hardness. Others divide them according to their different outward Appearance. Some Stones have an uneven and angular Surface, as those that come from *Spain*; some are clustered on the Surface, like Bunches of Grapes, from whence they are termed *Hæmatites Botryodes*, as we see in those brought from the *Hercynian Forest* in *Germany*. Others are formed in various Convolution, like Intestines, or the outer Surface of the Brain;

and these Surfaces are very well delineated by *Aldrovandus* and *Imperati*.

In Iron Mines, the Blood-stone is often found, in a distinct Ore; but where-ever it is found, or where-ever it grows, there are always red Stones, and red Earth, near it. It is likewise found sometimes in the same Places with the Loadstone, and indeed there is a great Affinity between these two, as being both reckoned Iron Ores. The Blood-stone is dug up in many Places of *Germany*, in *Italy*, and *Spain*, and this last is reckoned the best. That Blood-stone is to be made Choice of, which is hardest and smoothest, without any Mixture of Filth or Veins; and this Stone is carefully to be distinguished from another, something like it in Colour, but softer, which Painters and Joiners make use of, called by Mistake in some Books *Hæmatites*, but its true Name is *Ruorica Fabrilis*, or Ruddle.

Blood-stone is a kind of Iron Ore, from which Iron may be extracted; and, in the Valley of *Joachim* in *Bohemia*, the Mines of these Stones are so rich, that it is thought worth while to extract the Iron from them, which is also excellent in its Kind, as *Agricola* relates. This Stone is dissolved by Acids, in the same manner as Iron, and, with the Vitriolic Acid, is turned into green Vitriol.

Both *Dioscorides* and *Galen* used Blood-stone in Roughnesses or Cicatrices of the Eye-lids; and for this Purpose they first rubbed it upon a Whetstone, with Water, a Decoction of *Fennugreek-seeds*, or the White of an Egg; and they commend it, when diluted in Milk, in Suffusions of the Eyes. In all Ages it has been used in a fine Powder, from one to four Scruples, in any proper Vehicle, for all kinds of Hæmorrhages, in spitting Blood, and in Ulcers of the Lungs, which it dries and heals. In the Fluor Albus, Cachexia, and Suppression of the Menstrues, it is found to be as effectual as the *Crocus Martis asperius*.

The Chymical Preparations of the Blood-stone are not altogether to be despised; such as its ammoniacal Flowers, unuous Spirit, aperient Tincture, styptic Liquor, acid Spirit, and *Crocus*; all which are thus prepared.

Take of the finest Powder of Blood-stone, two Pounds; powdered Sal Ammoniac, a Pound: Mix them well, and put them in an Earthen Cucurbit, with a Glass Alembic, and proper Receiver fitted to it. Then sublime them in an open Fire, gradually increased. The first Substance that rises is an Ammoniacal Spirit, tinged with something of a yellowish Cast; afterwards come citrine Flowers, and then Flowers of a saffron Colour. The Mass which remains in the Cucurbit, being put into a Retort, and distill'd with a great Degree of Fire, will yield an acid Spirit, not unlike that of Sea salt. If the Residuum be exposed to the open Fire, it will dissolve into a Gold-colour'd styptic Liquor, of great Use. But, if the Residuum be calcin'd in a strong reverberatory Heat, it will turn to a *Crocus*, of the same Virtues with *Crocus Martis asstringens*.

From the above-mention'd Saffron-colour'd Flowers, a Tincture may be extracted with Spirit of Wine, which some Chymical Physicians prefer to the Tincture of Gold, and therefore term it the Elixir of the Tree of Life. The Ammoniacal volatile Spirit has the same Virtues with the volatile Spirit of Sal Ammoniac, and is even more proper to resolve Obstructions, because of the martial Parts contain'd in it. Both the Flowers contain the volatile fine martial Parts of the Blood-stone, raised by the Sal Ammoniac; and, as the Saffron-colour'd Flowers contain more such Parts than the Citrine, they are most esteem'd: They smell something like Saffron, and are therefore, by *Paracelsus*, termed *Aroph*, which is the same with *Aroma Philosophorum*. They open Obstructions, attenuate gross viscid Humours, and very often carry them off by Stool or Urine. The Dose is from three Grains to a Scruple; which if it exceeds, they sometimes cause Vomiting. They are order'd with very great Success in a Suppression of the Menstrues, Cachexia, Obstructions in the Viscera, stubborn Fevers, and Quartan Agues. They are by some preferred to the *Flores Martiales*, because in this Ore the metallic Parts are of a more rare Texture, and the several Principles cohere less than in Iron itself; and, consequently, they are more easily dissolved by the Sal Ammoniac. These may be order'd in this manner.

Take of the Flowers of the Blood-stone, twelve Grains; Saffron and Myrrh, of each five Grains; Extract of Wormwood, a sufficient Quantity for a Bolus, to be taken in a Suppression of the Menstrues.

Take

Take Arum-root, and white Agaric, of each an Ounce; Gum Ammoniac, half an Ounce; Flowers of Blood-stone, a Dram; Extract of Aloes, of Cinnamon, and of Saffron, of each two Drams; Syrup of Fumitory, a sufficient Quantity to make an Opiate, of which any Quantity between a Scruple and a Dram is to be taken in Obstructions of the Viscera, Jaundice, Scirrhus, Dropsy, and cachectic Affections.

Take Peruvian Bark, an Ounce; Flowers of Blood-stone, a Dram; Syrup of Wormwood, a sufficient Quantity to make a soft Opiate; two Drams of which are to be taken every four Hours, in Quartan Agues, and in all stubborn intermitting Fevers.

Instead of the Flowers, the Tincture may be used, which has the same Virtues, and may likewise be used with more Safety in Hæmorrhages, from ten to thirty Drops, in any proper Vehicle. The styptic Liquor obtain'd by dissolving the Caput Mortuum, or Residuum, after Distillation in the Air, is of very great Efficacy in stopping all kinds of Hæmorrhages, either externally applied, or taken inwardly, in the Quantity of between five, and twenty Drops. It also cures the Fluor Albus, Gleet, and Loosenesses, whether with or without bloody Stools, where the Patient's Body has been duly prepar'd. Lastly, whatever Efficacy is in the *Crocus Martis astringens*, may be found in the Caput Mortuum of the Blood-stone.

The Blood-stone is an Ingredient in the dysenteric Powder of *Charas*, in the Powder against Hæmorrhages and Hernias, and in the styptic Plaister of that Author.

HÆMATITINOS, αἱμασίτινος. An Epithet of a *Collyrium*, in *Galen*, prepar'd of the *Lapis Hæmatites*. *Paracelsus* calls a sort of Tartar, which is easily resolved, *Tartarus Hæmatitinos*.

HÆMATOCELE, αἱματοκήλη. A Species of Hernia, caused by extravasated Blood. *Ingrassias Comment. in Avicenna. de Tumor.*

HÆMATOCHYSIS, from αἷμα, Blood, and χέω, to pour out. A Term used by *Willis*, importing an Hæmorrhage.

HÆMATOPHLOEOESTASIS, αἱματοφλοεστάσις, from αἷμα, Blood, φλέψ, a Vein, and στάσις, a Station, is a Suppression of the impetuous Current and Intumescence of the Blood in the Veins: But some, as *Galen* says in his *Exegesis*, understand by the Word, the Veins full and tumescent with Blood.

HÆMATOSIS, αἱμάτωσις. Sanguification.

HÆMOCERCHNUS, αἱμώκερχνος. Blood brought up from the Fauces, with a Noise or Rattling, or bloody Excretions discharged in a dry Form; for κέρχνη either imports a *shrill Noise*, or Rattling; or, as among the *Athenians*, it signified, *dry*.

HÆMODENUM. A Name for the *Genista Tinctoria Germanica*.

HÆMODIA, αἱμωδία. A Stupor of the Teeth, caused by acid and austere Substances touching them.

HÆMOPHOBOS, αἱμοφόβος, from αἷμα, Blood, and φόβος, Fear. A Person who is afraid of Bleeding is thus call'd; but sometimes it is applied to a Physician, who is too timorous of directing Phlebotomy.

HÆMOPTYICUS, αἱμοπτύικος. A Person who discharges Blood from the Mouth is thus call'd.

HÆMOPTYSIS, αἱμόπτυσις, from αἷμα, Blood, and πτύω, to spit. A Spitting of Blood. See **PHTHISIS**, and **SPUTUM**.

HÆMORRHAGIA. An Hæmorrhage, or Eruption of Blood; from αἷμα, Blood, and ῥήγνυμι, or ῥίνω, to break forth.

The spontaneous Evacuations of Blood, produced by Nature, are generally made from those Places which are of a lax and tender Texture, have highly minute and slender Vessels everywhere dispersed thro' them, and are not every-where braced up by firm Membranes. Of this Kind the most considerable are the interior Part of the Nostrils, the Bronchia of the Lungs, the Flesh of the Gums, the Stomach, the Intestinum Ileum, the Extremity of the Intestinum Rectum, and the Uterus and Vagina, from the too much distended Arteries of which Parts the Blood is frequently discharg'd with an uncommon Impetus. But there are some extraordinary Cases, in which the Blood discharges itself from unusual Parts, in which the Vessels lie somewhat more deep. Thus *Salmuthus*, in *Cent. 3. Obs. 36.* and *Henricus ab Heer*, in *Obs. 36.* inform us, that they saw Blood spontaneously discharged from a Patient's little Finger. *Bartholine in Observat. Anatom. Cent. 1. Hist. 3.* tells us, that he saw the menstruous Blood discharged from the Hand and the Knee. *Panarolus* also, in *Pentec. 4. Obs. 15.* and *Amatus Lusitanus*, in *Cent. 2. Observ. 24.* and *Cent. 7. Curat. 48.* inform us, that they knew the menstruous Blood violently discharged from the Breasts. *Stalpart. Vander Wiel*, in *Cent. 1. Obs. 80.* furnishes us with various Instances of a menstrual Discharge from the Penis, in Men.

Such Eruptions of Blood are most familiar to those, whose Bodies are of a soft and spongy Make, of a delicate Texture; and whose Vessels, being turgid with Blood and Serum, render them, what the Antients called, Persons of a sanguineous Con-

stitution; for these are generally subject to Hæmorrhages, almost thro' the whole Course of their Lives: Whereas those who are of a choleric Temperament, have large Vessels, a firm Habit of Body, and thro' whose Vessels the Blood circulates briskly, are in their Youth principally obnoxious to an *Hæmoptysis*, or Spitting of Blood. Persons, on the contrary, of sanguineo-melancholic Habits, are generally most subject to the Hæmorrhoids; whereas Women of a sanguineo-phlegmatic Temperament are most commonly affected with bloody Vomings.

It is also to be observ'd, that different Species of Hæmorrhages happen at different Periods of Life, as *Hippocrates* long ago justly observ'd, in the 27th, 29th, and 30th Aphorisms, of his 3d Section. Thus Children, and young Persons, are most subject to Hæmorrhages of the Nose. In Persons somewhat farther advanced, the Blood attempts its Discharge, thro' the Vessels of the Lungs: Hence an *Hæmoptysis*, and a *Phthisis* arising from it, are most familiar to Persons of this Age. But in Adults, and such as have arrived to the Years of Maturity, the Blood generally discharges itself from the hæmorrhoidal Veins; whereas, in decrepit Old-age, it is generally evacuated by the urinary Passages.

'Tis also observable, that in the Spring and Autumn, especially about the *Æquinoxes*, the redundant Blood is more copiously discharged than at other Seasons, especially from the Nostrils; and in Men, otherwise subject to the Hæmorrhoids, from the Veins of the Anus. Sanguineous Apoplexies, which arise from Eruptions of Blood in the medullary Substance of the Brain, are, also, more frequent at these Seasons than at others, especially in the Spring: Whereas it is observable, that bloody Vomings, and Discharges of bloody Urine, rage more universally in the Autumn than in the Spring. Besides, about these Seasons, the spontaneous Evacuations of Blood generally appear, and return periodically.

We, also, observe, that almost all those, who, in their tender Years, are subject to copious and frequent Hæmorrhages from the Nose, are naturally of weak Constitutions, have delicate and easily ruffled Minds, are, thro' almost the whole Course of their Lives, subject to various Disorders, Spasms, and Pains, and rarely live to a great Age; for in their Youth they are inclin'd to a *Phthisis*. When they are arriv'd at the Years of Maturity, they easily fall into flatulent, spasmodic, and hypochondriac Disorders: And, when they have the good Fortune to be still farther advanc'd in Years, they are highly subject to nephritic and arthritic Complaints.

The Disposition to Hæmorrhages is for the most part hereditary, and convey'd from Parents to their Children; but it is most speedily put in Action, and exerts itself, by means of such external Causes, as render the Circulation of the Blood too brisk, or increase the intestine Commotion of its Parts. The most considerable of these Causes are, all Exercises of the Body and Mind more intense than usual: Aliments, or Medicines, taken internally, which are either too hot, acrid, or spirituous; as also the preposterous and unseasonable Use of Baths, Sudorifics, and Purgatives.

As Eruptions of Blood, when arising from a Repletion of the Vessels, and a Redundance of Blood, are highly salutary and beneficial to the Constitution, so they are full of Danger, when excited by a malignant acrid Matter; as in malignant and exanthematous Fevers. And when they arise from an Obstruction, Induration, or Corruption of the Viscera, especially of the Liver, Spleen, or Lungs, they generally prove mortal, because they readily terminate in a Cachexy, a Dropsy, the *Morbus Niger* of *Hippocrates*, or an *Hæctic*, which proves fatal.

Those seem to be in a great Mistake, who think that a Redundance of a laudable, fibrous, and purple-colour'd Blood, of a due Consistence, is the principal, immediate, and material Cause of Hæmorrhages; for those who abound in a thick and dense Blood, such as Persons of brawny and robust Bodies, who use severe Exercise, and coarse Aliments, are rarely subject to Hæmorrhages. But Persons who have too great a Quantity of Serum contain'd in their Vessels, such as those of serous Constitutions, those who are of a soft Texture of Body, and addicted to Idleness, who use Venesection too copiously, who have an obstructed Perspiration, or who eat more than they can digest and discharge, are most subject to Hæmorrhages, and the Disorders arising from them. That the excessive, and almost incredible, Quantity of Blood, sometimes discharged from the Nose and the Uterus, is rather the Effect of a serous than of a sanguineous Plethora, is sufficiently obvious from this, that the red Portion is very small, in Comparison of the serous; as is obvious from opening a Vein in violent Hæmorrhages, and collecting the Blood discharged from it.

It is observable, that some particular Phenomena previously appear in the Part where the Blood has a more than usual Tendency to make an Eruption. Thus an unusual Redness and Heat of the Face, a Swelling, Distention, and strong Pulsation of the Arteries, prognosticate an Hæmorrhage from the Nose; whereas a Lassitude of the whole Body, a Pain of the Back and Loins, a Tension about the Hypochondria, a Paleness of the Face, a Horripilation of the Skin, and a Constriction of the Pores, happen before

before Hæmorrhages from the Uterus. In an *Hæmoptysis*, or Spitting of Blood, an Anxiety of the Præcordia, a Difficulty of Breathing, an oppressive undulatory Pain about the Diaphragm, Flatulences in the Abdomen, and a Refrigeration of the Extremities, are perceived before the Eruption. A Vomiting of Blood is generally preceded by a tense and oppressive Pain in the Left Hypochondrium. The Eruption of the Hæmorrhoids is, also, for the most part, preceded by some spasmodic Strictures, Flatulences in the Abdomen, a tense and oppressive Pain in the Os Sacrum, a Languor of the Body, and a Refrigeration of the Extremities.

If the Circumstances already advanced are consider'd, and duly compar'd with each other, I think it will be sufficiently obvious, that Hæmorrhages do not proceed immediately and directly, either from a Redundance of Blood, its turgid Quality, by which it attempts a Discharge thro' the Vessels, the Acrimony of the Serum and Blood producing a Diæresis, or Rupture, or from its too great Fineness, in consequence of which it sweats thro' the Vessels, as the Antients imagin'd; but rather from a certain irregular and unequal Circulation of the Blood, which happens, when the Extremities, and such Parts as are remote from the Heart, are, by an intense Stricture and Contraction of the Fibres, so braced up, that the Blood cannot return thro' the Veins, but, in consequence of their increased systaltic Motion, is in larger Quantities transferr'd to other improper Places. Hence those small Arteries, which generally do not admit Blood, strictly so call'd, are preternaturally distended, and at last necessarily ruptured.

But the Causes of those Hæmorrhages, especially of the violent and symptomatic Kind, which either precede or follow other Diseases, especially of the chronical Kind, are to be sought for in Infarctions, Obstructions, and Indurations of the Vessels and Viscera, which put a Stop to the free Circulation of the Fluids. Thus, in hydraulic Machines, we observe, that, when some of the Pipes are obstructed, the Water bursts from the other open ones with greater Celerity, and a more violent Force. The same happens in the human Body; for when the Blood cannot pass sufficiently freely to the Heart, thro' the obstructed or spasmodically constricted Veins of any Part, the Force impelling it is increased, both in the large and small Ramifications of the Arteries, which, being full and turgid with Blood, have their Extremities open'd. This is sufficiently obvious from the Dissections of dead Bodies. Thus *Willis* informs us, that, upon the dissecting the Body of a Person who died of an *Hæmoptysis*, he saw a Tumor on the Left Side of the Lungs: Thus also in the *M. N. C. Decad. 8. an. b. Obs. 217.* we are told, that in dissecting the Body of a Patient, who died of the same Disorder, the Lungs were found totally cover'd with a large Quantity of Clay-like Matter, and the Auricle of the Right Ventricle of the Heart preternaturally large. *Blancard, Anatom. Pract. Obs. 46.* in a Person who died of the same Disorder, found the Spleen tumid, and the Vessels of the Mesentery and Omentum stuffed with Blood. The same Author, in *Obs. 23. and 32.* tells us, that, in a Person who died of a Vomiting of Blood, the Liver was found hard and scirrhus, and the Spleen tumid, and full of Blood. Hence *Fernelius*, in his *Method. Medendi*, justly observes, "That Persons whose Viscera and Liver are weak and scirrhus, are subject to frequent Hæmorrhages of the Nose, as well as dropsical Patients." *Heurnius*, in his Commentary on the Aphorisms of *Hippocrates*, confirms this Doctrine, in the following Words: "Those whose Face is of a greenish Colour, labour under some Disorder of the Liver; and, in them, frequent Hæmorrhages from the Nose are a Sign of an approaching Dropsy."

Since preternatural Eruptions of Blood generally draw their Origins from spasmodic Constrictions of the Parts, and Contractions of the Veins, we hence plainly understand, why hypochondriac Patients, in whom the Stomach, and whole nervous Canal of the Intestines, are continually afflicted with flatulent Distentions, and spasmodic Strictures, by reason of the Irregularity of the peristaltic Motion, are so highly subject to the Hæmorrhoids; and why, if the Blood is not discharged in that manner, their Symptoms are greatly exasperated.

With respect to the Cure of Hæmorrhages in general, I would have it observ'd, that their Practice is highly preposterous, who, maintaining that a Redundance of red Blood, so called by way of Eminence, is universally the material, as well as accidental, Cause of these Disorders, use frequent Venesections for their Cure, tho' at the same time, in the Beginning of the Disorder, for the sake of Prevention, especially in sanguineous Habits, seasonable Venesection is highly salutary and beneficial. But the justest and most rational Intentions of Cure consist in deriving the Impetus of the Blood from the Part affected, by proper Remedies; such as Bathing the Fleer, Clysters, Frictions, and Ligarures of the external Parts, warm Coverings, Fomentations, and Baths. Then the spasmodic Strictures of the nervous Parts are to be relaxed. And lastly, by gentle Laxatives, moderate Diaphoretics, and Abstinence from high Feeding, which generates Blood, the Redundance of the serous Colluvies is to be remov'd, and its Accumulation for the future prevented. *Fred. Hoffmann*

As Hæmorrhages are of various Kinds, it is convenient to treat of them under different Articles. Thus, under the Article *ABORTUS*, the Reader will find an Account of the Methods to be pursu'd, in case of an Hæmorrhage from a Miscarriage: And will see more upon this Subject, under the Article *UTERUS*. But I must remark, that, under the Article *ABORTUS*, I have made a Reference to *HÆMORRHAGIA*, which should have been to *UTERUS*. For an Hæmorrhage of the Brain, see *APoplexia*. For an Hæmorrhage of the Nose, see *NARES*. For Hæmorrhages of the Uterus, see *UTERUS*. For Hæmorrhages from the Urinary Passages, see *URINA*. And for Hæmorrhages, consider'd as Symptoms of Wounds, see *VULNUS*.

PROGNOSTICS FROM HÆMORRHAGES.

As it was often observed; that, in acute and violent Distempers, a sudden and copious Hæmorrhage, either from the Nose, the Hæmorrhoids, the Anus, or, in Women, the Uterus, was the Means of restoring the Patient to Health, so Physicians, in this respect, began to imitate Nature, by taking away large Quantities of Blood in Diseases. So well was *Hippocrates* persuad'd of the Reasonableness of this Practice, that in all acute and violent, or great Diseases, such as Fevers, and Inflammations of the Viscera, he chiefly recommends Phlebotomy. "In acute Diseases," he says, *Lib. de R. P. I. A.* bleed, if the Disease be violent, and the Patient strong, and in the Flower of his Age." And this Kind of Remedy have Physicians been taught to practise, not only in Imitation of Nature, but by the Example of some Animals, particularly the *Hippopotamus*, or River-horse, which, as *Pliny* tells us, being grown to an excessive Degree of Obesity, thro' its Gluttony, thrusts its Leg against the sharp Stump of a Reed, and thus, wounding a certain Vein, procures a plentiful Discharge of Blood, which effectually removes the Plethora, with which it was before oppressed. With much the same Intention, Physicians attempt to evacuate the Humours, either by Cathartics, Emetics, Sudorifics, or Diuretics.

Since Nature, therefore, often procures a Solution of many Diseases, by copious Discharges of Blood, it shall be our Business to treat of those spontaneous Evacuations, or Excretions, because they are not all good or salutary, but are sometimes very far from relieving the Patient; as are also all other Excretions, whether by Vomit, Stool, Sweat, or Urine; nor do all Abscesses free from Diseases, but only such as are properly qualified. We shall go on, then, first, to speak of such Excretions of Blood as are good, and always portend Recovery to the Patient.

Among spontaneous Excretions of Blood, those seem to afford the best Grounds for Prediction, which in continual, acute, and violent Fevers, are discharged from the Nose, and are called peculiarly by the *Greeks*, *αιμορραγία*, *Hæmorrhagio*. *Galen*, in *Prorrheth.* says, that Deliria and Hæmorrhages are excited by the Recurrence of hot and thin Humours to the Head; and, in his Comment on the First of the *Epidemics*, he says, that the Blood, excited by Heat, takes its Course upwards, and is carried into the Head; whence necessarily follows an Inflation, Anastomosis, and even a Rupture of the Veins, from the Redundance of Spirits: And in the same Book he writes, that Eruptions of Blood from the Nostrils, in burning Fevers, proceed from a Predominance of yellow Bile, which, mixing with the Blood, after rendering it adust, sends up with it an Excess of Heat to the Head, which produces a Rupture of the Veins, and an Effusion of Blood from the Nostrils.

Hence it appears, that such Hæmorrhages always proceed from Blood heated to an Excess, or Bile mix'd with it; and never happen but in Bodies of a hot Temperament, and in hot and acute Distempers, such as a *Synochus*, and continual burning Fevers: And this is confirm'd by *Galen*, in the before-quoted Comment, where he says, that Eruptions of Blood, in burning Fevers, are caused by an Excess of Heat, by which the Humours are exalted, and carried to the Head. To the same Purpose, we are told by *Hippocrates*, 6 *Epid. Sect. 3.* that "Hæmorrhages from the Nose happen to those who are of a palish black, or of a yellowish red, or of a palish yellow Complexion;" because such Persons are obnoxious to these Eruptions from the immoderate Heat of their Humours; for which Reason also *Hippocrates*, *ibid.* says, that those who begin to use "Venery, or feel Inclinations that way, are subject to Hæmorrhages;" he means Boys grown up, and passing from a State of Puberty to Manhood, who are subject to such Profusions, both on account of the Redundance and Heat of their Blood.

From such Causes, then, are Patients subject to Hæmorrhages, which, as was observ'd, principally affect those who are of a hot Temperament, and abound with hot Blood; and, besides, labour under Disorders proceeding from Humours of the same Quality; of which Nature, according to *Galen*, are all continual Fevers, and, among Intermitents, Tertian, and sometimes Quartans. To these we may add, all internal Inflammations of the Part about the Region of the Præcordia, particularly the Liver, Spleen, Diaphragm, and Stomach, and sometime Pleuritis and Phrenitis, but very seldom, or never, Lethargies or Peripneumonies. In Diseases of this Nature, therefore, are Hæ-

morrhages, or Eruptions of Blood, to be expected. We are now to regard what may be prognosticated from them.

Hæmorrhages from the Nostrils, and all the Excretions of Blood, from what Part soever, whether by the Uterus in Women, the hæmorrhoidal Vessels in Men, or sometimes by the Stomach, (which last are seldom good, *Hippocrates*, 7 *Aph.* 37. pronouncing "Vomitings of Blood, without a Fever, salutary," but the contrary, if attending a Fever," tho' Vomitings of Blood have been critical in many Diseases) are distinguish'd into good, or what we call *critical*, or *judicial*; subdivided into *perfect* and *imperfect*; so called, because they perfectly or imperfectly determine the Event of the Distemper; and into *bad*, called also *symptomatical*; but these are contain'd under the *imperfect critical*.

Critical Hæmorrhages are always salutary, and Prognostics of a Recovery, the perfect critical of a sudden Recovery, the imperfect critical of a Recovery for some time delay'd. Critical Hæmorrhages, of the best Kind, which prognosticate certain Recovery to the Patient, are known by the following Signs: First, A critical Hæmorrhage never appears in a crude State of the Distemper, but always attended with Signs of Concoction; for which Reason a perfect critical Discharge happens in the Height of the Disease, an imperfect one in its Increase, where there are some, but not all the Signs of Concoction. It is necessary, therefore, in order to a salutary Hæmorrhage from the Nose, or any other good Excretion of Blood, that there should be some Signs of a Concoction, with which if the Hæmorrhage be attended, it will be of Service to the Patient, as we are assured by *Galen*, *Lib.* 3. *de Crisibus*, *Cap.* 7. and *Hippocrates*, *de R. V. I. A.* where he says, "that, if there be a Flux of Blood from the Nose, there is a Solution of the Disease; and the same Event attends a critical or derly Sweat, or an Evacuation of white thick Urine, with a light Hypostasis." Some perhaps will object the Case of *Meton*, *Epidem. Lib.* 1. *Ægr.* 7. and of him who lay sick in the Garden of *Deales*, *Epidem. L.* 3. *Ægr.* 3. and others, to whom there happen'd a truly critical Hæmorrhage, attended with a Crudity of the Excrements. In *Meton's* Case, the Urine was black, and had a black Sediment; in the other Patient, thin Urine, with a pretty thick Sediment, shew'd the Disease not only to be in a very crude State, but attended, also, with a considerable Malignity. For Answer to this, it may be said, that so great is the Efficacy of a copious Hæmorrhage, towards determining a Disease, as often to relieve and free the Patient, even in the Beginning of the Disorder, and before any Signs of Concoction appear. This is the Opinion of *Galen*, concerning the Case of *Meton*, when he says, "His Crisis and Recovery really seem to be owing solely to the Hæmorrhage, tho' the Signs were not at all salutary." An Excretion of Blood, then, tho' very good, and a most certain Prognostic of Health, when it happens in the Height and Concoction of the Distemper, is not to be despised, tho' happening in the Beginning of the Disorder, and attended with Signs of Crudity. To this Purpose it may be observ'd of the morose Woman, *Epidem. L.* 3. *Ægr.* 11. that she recover'd after a Flux of the Menfes, when under the Symptom of black Urine; tho' to this Instance *Galen* says, that the black Colour of the Urine had nothing of Danger in it, because it receiv'd that Colour from the Menfes, which were retained, and of a melancholy Consistence: And *Meton* recover'd, who had a critical Hæmorrhage, under the same Symptom of black Urine. Agreeable also with this is the Observation of *Hippocrates*, 1 *Epid. Stat.* 3. that those under the Fever, on whom the Jaundice appeared on the sixth Day, were relieved by an Hæmorrhage; and yet, 4 *Aph.* 62. he condemns a Jaundice in Fevers, appearing before the seventh Day, as it happen'd to *Hermocrates*, 3 *Epid. Sect.* 1. *Ægr.* 2. And, 1 *Epid. Stat.* 3. he informs us, that *Antiphan*, the Son of *Critobulus*, labouring under a Fever, with thin Urine, had an Eruption of Blood, and afterwards recover'd. From the Premises we may infer, that Excretions of Blood have this Prerogative, if I may so say, above other Evacuations, that they frequently prognosticate a Recovery, in a crude State of the Disease, when other Excretions, whether by Stool, Vomiting, or Sweat, which appear at that time, are symptomatical. The Reason of this I take to be, that the Blood may at any time be commodiously evacuated thro' the open Veins, and wants no Preparation for its Discharge, as do the other Humours; whether they require to be excreted by Stool, Vomit, or Sweat, on account of their Thickness, Viscidity, or the Straitness and Obstruction of the Vessels; which is the Reason why Physicians ought not to use purging Medicines in the Beginning of such Disorders; according to that Direction, 1 *Aph.* 22. "Concocted, not crude, Matters are to be purged, or thinned, nor are they to be meddled with in the Beginning of Disorders, unless there be an Orgasmus, and a Tendency to Excretion." But, in Evacuations by the open Mouths of the Veins, we justly wait for no Concoction; and for the same Reason we bleed in the Beginning of acute Distempers; and hence spontaneous Hæmorrhages are good and salutary. We may add, what is worthy of Observation, that copious Eruptions of Blood are of Service, not so much on account of evacuating the bad Blood with the rest, as by an uni-

versal Refrigeration of the Body, and causing a free Perspiration of the hot Vapours, and a Ventilation of the Humours. We conclude, therefore, that Excretions of Blood are most beneficial in the Height of the Disease, and with manifest Signs of Concoction; but that, however, they are not on all Accounts to be dreaded, tho' attended with Signs of Crudity.

The second Condition, or Qualification, of the most laudable Hæmorrhage is, That it be free and copious. Of such Discharges *Hippocrates* speaks, 2 *Epid. Sect.* 1. where he says, "that plentiful Hæmorrhages from the Nose generally relieved the Patients." *Galen's* Judgment of the same, in the Case of *Meton*, you have before. Again, *Hippocrates*, 1 *Epid. Stat.* 3. tells us, "that, in the Case of burning Fevers, those who had a good and plentiful Discharge of Blood by the Nose, generally recover'd by that means; nor do I know any, he says, who, in this epidemical Constitution, died after a just Hæmorrhage." But *Philiscus*, *Epaminon*, and *Silenus*, from whose Noses fell a small Quantity of Blood, by Drops, on the fourth and fifth Day, all died." And afterwards he says, "Some there were, on whom the Jaundice appear'd on the sixth Day; but they were relieved by some Evacuation, either by Urine, Stool, or a copious Hæmorrhage from the Nose. Thus it happen'd to *Heraclides*, who lay sick in the House of *Aristocydes*, and had a plentiful Effusion of Blood from the Nostrils, and Evacuations by Stool and Urine." Again, a little afterwards, "Multitudes were affected with an Hæmorrhage, especially young Persons, and those in the Flower of their Age; but most of those, who had no Hæmorrhage died." In the same Book, a little farther, speaking of Women who had a critical Evacuation of Blood, he says, "Very many had a Flux of the Menfes in their Fever, some an Hæmorrhage from the Nose, especially Virgins, who were never before thus affected. Some had an Hæmorrhage from the Nose, with the first Eruption of the Menfes, as it happen'd to a Virgin, the Daughter of *Dætharfes*, who had the menstrual Flux for the first time, attended with a copious Profusion of Blood from the Nostrils." From the Premises it is sufficiently demonstrated, that copious Hæmorrhages are very salutary and critical; which is the Conclusion of *Hippocrates*, 2 *Epid. Sect.* 1. "Copious Hæmorrhages from the Nose, he says, procure a Solution in many Disorders, as it happen'd in the Case of *Heragoras*." And of the Woman he speaks of, 4 *Epid. T.* 27. who on the fifth and sixth Days had a Flux of Blood from the Nostrils, and on the seventh Day underwent a Crisis.

Tho' it abundantly appears, that one of the principal Characters of a salutary Excretion of Blood is, that it be in a large Quantity; yet we are to be careful, that we do not deceive ourselves with the Copiousness of the Evacuation, and mistake those for very salutary and critical Excretions, which are to be esteemed otherwise, since many have died under a large Eruption of Blood. For, under violent Distempers, immoderate Evacuations are frequent, while the Disease is yet in a crude State, as *Galen* observes, *Lib. de Prasag. ad Posthumum*; for which Reason the Physician is often obliged to stop the Eruption, as *Galen* did for a young Man of *Rome*, who had an Effusion of Blood from the Nostrils, to the Quantity of four Pounds and an half. It will be necessary, therefore, to regard the Signs by which good and bad copious Excretions of Blood are distinguish'd. Large Evacuations are judged to be good and salutary, to omit other Signs, which are common to all good Excretions, when the Patient supports them with Ease, or finds himself the stronger and lighter for them; if he be no longer thirsty, whereas he was much afflicted with Thirst before; if the Fever leaves him, and the Symptoms are remov'd, or diminish'd, and his Pulse beats more equally, strongly, and orderly. "Myself, says *Prosper Alpinus*, but last Year, underwent a critical Solution of a Quartan, from a copious Excretion of Blood, to the Quantity at least of six Pounds. Among other Signs consequent upon so large an Evacuation, which was by almost all esteemed immoderate, I found my Thirst, which before was continual and violent, quite extinguish'd: And I felt myself not at all the weaker, but rather stronger and lighter, which flatter'd me with some Hopes of a Recovery, tho' contrary to the Judgment of all the Physicians; and I persuaded myself, that this Evacuation was critical, and upon no Account to be dreaded, tho' the Profusion of Blood was, for the greatest Part of it, attended with a Cough, which arose on a sudden." Such then are the Marks by which we distinguish a good and critical copious Evacuation, from a bad and symptomatic one.

A third Condition, or Character, of a critical and salutary Hæmorrhage, is, that it happens on a critical Day: For at such a Season the Appearance of Excretions, whether good or bad, are of greatest Moment towards predicting the Death or Recovery of the Patient: Hence the Author of the *Coac. Prasag.* justly observes, *T.* 150. that "acute Diseases are determin'd on a critical Day, by an Hæmorrhage from the Nose, and a copious Sweat." And *Text.* 152. he says, that "Fevers generally have their Solution on the seventh, ninth, and fourteenth Day, by an Hæmorrhage from the Nose."

A fourth Requisite in laudable Hæmorrhages is, That it be pre-judicated on some indicatory Day. For Nature uses on one of the *Dies indices*, or indicatory Days, to excrete a moderate Quantity of Blood, as an Indication of a future and more ample Profusion on a critical Day. Thus, in the Case of *Mezon*, 1 *Epid. Sect. 3. Ægr. 7.* on the fourth Day of the Fever he was twice affected with a gentle Bleeding at the Right Nostril, and the next Day with a copious Effusion of Blood from the Left Nostril, which gave a Solution to the Disease.

We may add, as a fifth Requisite of the best Sort of Hæmorrhage, That it ought to be agreeable to the Nature and Quality of the Disease, as well as of the Patient, and his preceding Way of Living, with the Constitution of the Air and Seasons. We have already observ'd, that Excretions of Blood are very proper in all acute Disorders, as well in Fevers, and among them the Synochus, and burning Fevers, as in Inflammations of the Liver, Spleen, Diaphragm, and frequently in Pleurifies and Phrenies. In such Cases, therefore, it will be very proper and useful to regard and consider these Excretions, which in other Diseases are of less Importance. For the same Reason such Evacuations are beneficial in all Bodies which abound with immoderately hot Blood; and therefore, if the Patient's habitual Way of Living has contributed to the Increase of Bile, if it be Summer, or an hot and dry Season, or there be any other Circumstance which may promote the Generation of bilious Blood, nothing can be of more Service to the Sick, under the before-mention'd Disorders, than an Hæmorrhage: It is even no small Misfortune to the Patient to have none; as we learn from the Observation of *Hippocrates*, before quoted, 1 *Epid. Stat. 3.* where we are told, that the greatest Part of those young Persons, who were not favour'd with an Hæmorrhage, died.

In the sixth Place, The most laudable Hæmorrhage must be congruous or suitable to the Places affected, so as either to lie in a direct Line with them, and by that means to divert, and plentifully to evacuate, from the afflicted Part; or opposite thereto, in order to make a Revulsion from the same. To this Purpose we read, 6 *Aph. 21.* that "mad Persons, at the Appearance of the Varices, or Hæmorrhoids, are freed from their Madness;" and, 4 *Aph. 25.* that "an Excretion of Blood downwards by Stool is good, or salutary." Here *Galen*, in his Comment, says, "The Truth is, there is no better Remedy for a confirm'd Melancholy, than a Flux of Blood from the Veins, called the Hæmorrhoids." And, 5 *Aph. 32.* we are told, that Women are cured of a Vomiting of Blood by an Eruption of their Menfes. For this Reason it is customary in the Cure of Madness, to apply Leeches to the Hæmorrhoidal Veins, which is practis'd with very good Success, upon those in whom those Veins are full and large, and especially if there has been a Discharge this Way before; provided still, that Care be taken to make the Evacuation sufficiently copious, and not to be contented with drawing off a small Quantity of Blood, as is too generally the Custom, which, for that Reason, seldom answers the Intention.

To divert the Humours from the Part affected, and at the same time to evacuate them, the best Excretion, whether natural or artificial, is in a direct, or on the same Side with the Part affected; which Sort of Evacuation *Galen, de Curat. per Sang. Miss.* highly commends, and calls it κατὰ ἵκιν, "direct," as, when the Liver is affected, to have an Evacuation of Blood on the Right Side; when the Spleen is disorder'd, on the Left. With this View, we are told by *Hippocrates*, 2 *Epid. Sect. 3.* that "a painful Tension of the Sides, and Tensions of the Hypochondria, with Tumors of the Spleen, and Hæmorrhages from the Nostrils, ought to regard one another κατὰ ἵκιν, in a direct Order."

A seventh Requisite of the most laudable Hæmorrhage is, That it wholly remove, or, at least, diminish the Disease; and that the Patient be relieved, and the Symptoms quite removed, or greatly mitigated. Of this Nature was the Hæmorrhage observ'd by *Hippocrates* in *Heropythus*, and the Virgin of *Larissa*. Of *Heropythus*, 3 *Epid. Sect. 3. Ægr. 9.* he says, "that on the fortieth Day much Blood came from his Nostrils, and he recover'd in some measure the Use of his Reason; his Deafness was abated, and his Fever remitted." And of the Virgin of *Larissa*, *ibid. Ægr. 12.* he tells us, "that on the sixth Day she had a copious Hæmorrhage from the Nose, was seized with a shivering Fit, and, immediately afterwards, with a copious hot Sweat, over every Part, procuring a Crisis, upon which the Fever left her." The best Hæmorrhage is either what gives an entire Solution to the Disease, and its Symptoms, or, at least, diminishes them all. *Galen, de Mor. Musc. L. 2. C. 6.* writes, that he saw a Man, who had been thirteen Days delirious in a Fever, immediately restored to Health, upon a very plentiful Evacuation of Blood from his Nostrils, and recover the Use of his Reason on a sudden. *Hippocrates*, 4 *Aph. 60.* pronounces an Hæmorrhage from the Nostrils to be good, when it removes a Deafness; and the Author of the *Prorrhetica*, Lib. 1. T. 152. says, "They who are affected with Pains of the Head and Neck, together with a Weakness and Trembling of the whole Body, are relieved by an Hæmorrhage." To this I may add, what

is a singular Benefit from a critical Excretion of Blood, that the Patients are thereby relieved from a Thirst, by which they were before extremely afflicted; for in many Cases the best of Blood, when not critically discharged, usually excites a Thirst by drying; whereas a critical Eruption thereof, by means of refrigerating and moderating the febrile Heat, and ventilating the Body, allays the Thirst; and perhaps, also, the Viscera are moisten'd, on account of the Suppression of the Heat, by which their Moisture was exhausted; agreeably to which Sentiment, *Hippocrates*, 4 *Aph. 27.* tells us, "that they who, labouring under Fevers, are affected with Hæmorrhages from any Part, if they feel themselves thereby refresh'd, have their Bellies moisten'd, and excited to Excretion." In short, as we said before, the best Hæmorrhages are those, after which the Patients find themselves stronger, and better able to raise themselves, and the Pulse becomes more regular.

OF BAD AND DESTRUCTIVE HÆMORRHAGES.

Excretions of Blood, which are of a bad Kind, and Prognostics of the worst Event, are known by Signs directly contrary to the foregoing; as,

First, When Hæmorrhages, or other sanguineous Excretions, are attended with no Signs of Concoction. For, tho' we have shewn, that large Hæmorrhages are best, and even sometimes good in a crude State of the Disorder, yet it is difficult to form a Judgment of them, unless they are attended with good Signs; but, when they are attended or succeeded by bad Signs, they portend nothing but Destruction. If, therefore, an Eruption of Blood be preceded by pernicious Signs in the Excrements, as a Blackness of Urine, with a black Sediment, turbid Urine, like that of Horses, not clear, or thin and aqueous; or fetid, virulent, party-colour'd, and black Vomitings; or black and colligative Stools; or other pernicious Symptoms; it portends no Good: Or, if any bad Signs appear together with the Eruption, or succeed it, nothing but Destruction is to be expected. Of such Signs we read, 1 *Prorrhet. 126.* where it is said, "If there be an Eruption of Blood from the Nose, attended with small Sweats, and a Refrigeration of all the Parts, it shews a Malignity, and threatens a bad Event." For, since there is a Refrigeration of the Extremities, and also of the whole Body, the latter is by far the more dangerous. Again, *ibid. 127.* "An Hæmorrhage succeeded by black Stools is bad: Very red Stools are also bad in such a Case, and especially if the Hæmorrhage happens on the fourth Day." *Galen*, commenting on *Text. 128.* says, "that all Eruptions of Blood, attended with Sweating, are malignant." Again, *ibid. 129.* "A moderate Hæmorrhage with black Stools, in acute Disorders, succeeded by Deafness, is bad: In these Cases, Blood voided downwards is bad; however, it removes the Deafness." We have observ'd, however, says *Prosper Alpinus*, in a very robust Man of *Bologna*, who laboured under an acute malignant Fever, a continual Hæmorrhage from the Nose, which held him from the first Day to the fourteenth, on which he recover'd; during which he lost every Day at least a Pound of Blood. When this Hæmorrhage had continued to the seventh Day, being under some Concern for the Event, we used some Medicines to stop the Blood; after which it flowed no longer from the Nostrils, but passed off in the same manner by Stool, accompanied with a copious and bilious Diarrhœa, which continued also to a violent Degree, from the first Day of the Illness to the fourteenth, when both Excretions terminated in a perfect Crisis: Thus did this Man escape, merely by his extraordinary Strength of Nature. To this Purpose also, the Author of the *Prorrhetica* says, that "under a Constipation of the Belly, where nothing is excreted but small black Faeces, resembling the Dung of Goats, and that by Compulsion, an Hæmorrhage by the Nose is a bad Prognostic." *Galen*, in his Comment on this Place, says, that those who are thus dried and exhausted by the febrile Heat, are unable to bear Evacuations. Thus, *Coac. 40. 342.* "An Hæmorrhage from the Nostrils, attended with cold Sweats, and a general Refrigeration, is bad." And, *ibid.* "Extraordinary Refrigerations, succeeding an Hæmorrhage, on critical Days, are very pernicious." Hence it appears, that Eruptions of Blood, attended with bad Signs, are of dangerous and pernicious Consequence. Of such Hæmorrhages *Hippocrates* speaks, 3 *Epid. Sect. 3.* "Nor had those who were thus affected," he says, any other Sign of a Crisis; there was no just Hæmorrhage, nor critical Abscess form'd as usual."

As Eruptions of Blood with bad Signs are pernicious, so also, in the second Place, are those which neither answer the Essence of the Disease, the Nature of the Patient, the Constitution of the Air, the Season of the Year, or the Age, preceding Way of Living, and Temperament, of the Sick. Thus, for Instance, in cold and pituitous Diseases, an Eruption of Blood can never be otherwise than bad.

Thirdly, Hæmorrhages which are not congruous, or rightly situated, with respect to the Places affected, are pronounced bad. To this Purpose, we are told by the Author of the *Prorrhetica*, 125. "That Eruptions of Blood, on the contrary Side, are bad; as if, for Example, under a Tumor of the Spleen, there should happen an Hæmorrhage from the Right Nostril; and

the

the Case is the same, with respect to the Hypochondria." For the same Reason, an Excretion of Blood by Vomiting, in Fevers, is condemn'd by *Hippocrates*, in his *Aphorisms*; and more especially if the Blood be black, and most of all in extenuated Bodies; concerning which latter, 4 *Aph.* 23. he says, "In Persons much extenuated by acute or chronical Diseases, or by Wounds, an Excretion of black Bile, or a Substance like black Blood, indicates Death on the next Day."

Fourthly, An Excretion of Blood, from which the Patient finds no Relief or Alteration, is to be condemn'd, and most of all when the Case is alter'd for the worse, because such an Excretion is to be reckon'd among those undetermining Excretions, which are of a fatal Kind. For, as *Galen* says, *Com. in 1 Prorrh.* of critical undetermining Symptoms, some are fatal, and others indicate a difficult Crisis; but such as make an Alteration for the worse are to be reckon'd among the former. We may add, that the Pulse, by its Weakness, Inequality, and remarkable Variation for the worse, is a sufficient Demonstration of the Malignity of such Excretions. We may also judge of their Malignity from the Quantity of Blood, as when it flows immoderately, or in too little a Quantity, or not all at once, but by Intervals, as it happens in imperfect Crises. An immoderate Effusion is never good, often bad, because it greatly diminishes the natural Heat, by which means Nature easily sinks under the Disease. To this Purpose, we are told by the Author of the 1 *Prorrh.* 123. "That the Belly suffers by long Hemorrhages," because the Part is too much refrigerated; and, 7. 124. "That violent Hemorrhages, in general and critical Refrigerations, are most pernicious;" because, by greatly refrigerating the Body, they add Cold to Cold. Hence a general Refrigeration after a Rigor, when not succeeded by a Revocation of the Heat, is condemn'd, *ibid.* 6. And, when the Body is exhausted by an immoderate Effusion of Blood, sometimes the Patient falls into a mortal Delirium, sometimes into frightful Convulsions, as we may learn from 7 *Aph.* 9. It sometimes happens in Diseases, not of a violent Kind, that the Patients are refrigerated to such a Degree, as to fall into a Dropsy; for many have been observ'd to be hydropical upon that Account. *Galen* expresses himself to this Purpose, *Com. in 2 Aph.* 72. where he tells us, "That an immoderate Efflux of Blood, either from the Uterus, or the Veins called the Hemorrhoids, or from an Ulcer, injures the Patient in all or most of the natural Functions; and some are by this means affected to such a Degree as to fall into a Dropsy."

Of Prognostics, in acute Distempers, from small and suddenly ceasing Excretions of Blood, and Drops of Blood distilling from the Nose.

Blood effused from the Nostrils, or any other Part, in a small Quantity, is sometimes good, where it shews the Beginning of a Crisis in some indicatory Day, as it proved in *Meton*, 1 *Epid.* Sect. 3. *Agr.* 7. who had a moderate Hemorrhage from the Nose on the fourth Day, and on the next had a copious Effusion of Blood from the same Part, attending a Crisis. But the Case is not the same, when the Disease is in a perfectly crude State; much less, when the Excretion is attended with some pernicious Sign; for in such Circumstances a small Effusion of Blood discharged at once, or at Intervals, is always a bad Sign, and a very fine Prognostic of Destruction, where the Disease appears not in the least concocted by it, nor the Patient at all reliev'd. However, on some Occasions it may be a very good Excretion, as when the Disease is not perfectly crude, and the other Signs are salutary, and if it be renew'd in a very copious measure on the next critical Day. But if it should either not happen on an indicatory Day, or not be succeeded by a plentiful Eruption, on a judicatory or critical Day, it will be only symptomatic, and, if other bad Signs appear, and the Disease changes afterwards for the worse, a mortal Prognostic. It very rarely happens indeed, as far as we have been able to observe, that a small Excretion of Blood is salutary, but, on the contrary, is generally very pernicious, as always foreshewing the Length of the Disease, and often the Death of the Patient, especially when the Evacuation is not made by a convenient Passage, nor the Sick at all relieved by it; as, for Example, if the Liver be inflamed, and the Excretion be made by the Left Nostril; or the Spleen inflamed, and the Blood comes from the Right Nostril; or if the Uterus be affected, and the Discharge made, not by the Uterus, but by the Nose, or by Vomiting: And the same Judgment is to be form'd, when neither the Fever, nor its Symptoms, are at all mitigated by such an Evacuation. Such then are the Indications of a small Excretion of Blood, from which nothing certain can be prognosticated, without considering the other Signs; and, if these are bad, the Excretion, you may be sure, is also bad; if the Signs are not bad, the Excretion shews a difficult or doubtful Crisis; and with good Signs it portends the long Continuance of the Disease. We may conclude, therefore, that a small Excretion of Blood, not succeeded by one more copious, or an Excretion which stops on a sudden as soon as begun, are pernicious to the highest Degree, as indicating an

extreme Decay of Strength, according to *Galen. Com. in 1 Prorrh.*

We come now to consider what may be infer'd, or presag'd, from Excretions of Blood by Drops, since such Discharges very frequently happen in acute Fevers, especially in those of the inflammatory or burning Kind: Such Excretions, when they stop as soon as begun, in the Opinion of *Galen*, are worse then if they had never appear'd. It is to be observ'd, that, according to the various Quantities of the flowing Blood, the Eruption thereof is to be estimat'd. One Quantity of Blood is copious, continual, and discharges itself in a full Stream, and this appears in a perfect Crisis; another Quantity is discrete, or consists of distinct Portions, which, when continu'd to be evacuated at Intervals, sometimes foreshews a future Crisis; and there is a third Quantity, which discharges only a few Drops by the Nose, which Accident is sometimes occasion'd by an external Cause, as by exposing the Head to the Rays of the Sun, drinking too freely of pure Wine, and the like. But, when such an Eruption is owing to the Violence of the Fever, it indicates a vain Effort of Nature towards a Crisis, and the Disappointment to arise either from the Malignity of the Disease, the corrupt State of the Blood, or the Weakness of the Brain. This Excretion by Drops, in milder Disorders, where the other Signs are salutary, foreshews the long Continuance of the Disease, but in acute Distempers are most certain Prognostics of Death; for it shews, as *Galen* says, *Com. in Lib. de R. V. I. A.* that Nature made an Attempt to discharge the superfluous, or, as he expresses it, *Com. 1. in Prorrh.* redundant, Matters, collected in the Brain, but was unable to effect it, either thro' its own Weakness, or the Thickness of the Blood, or the Denseness of the Parts, or thro' a Concurrence of some or all of these Causes. Hence it appears, that all Distillations, or Droppings, of Blood in acute Diseases are very pernicious, and a Sign of Fevers of a bad and malignant Quality, as *Galen* observes, *Com. in 3 Epid.* It was also an Observation of *Hippocrates*, 3 *Epid.* Sect. 3. on the epidemic burning Fevers of the pestilent Constitution, that one of their concomitant Symptoms was, a small Excretion of Blood, which fell by Drops from the Nose; and that it was a pernicious Sign: And this is confirm'd by the same Author, 1 *Epid.* Stat. 3. where he informs us, "That when burning Fevers began to be epidemic, they gave manifest Indications to what Subjects they would prove mortal." Then, after enumerating many pernicious Signs, which he had observed in the Beginning of those burning Fevers, he adds, "Nor had any of those who were affected with these Symptoms, an Hemorrhage from the Nose, but only an Excretion of a small Quantity of Blood, which fell by Drops from that Part." All Distillations or Droppings of Blood, therefore, in acute Diseases, are justly esteem'd pernicious Signs; in Confirmation of which, we are told by *Hippocrates*, in the same Book, "That *Philiscus*, *Epaminon*, and *Silenus*, who had a small Distillation from the Nose on the fourth and fifth Day, died." Excretions of Blood by Drops, then, in acute Diseases, are most certain Prognostics of Death; and most of all, when the Blood is thick and black, according to the Author of the *Prorrheticæ*, "Excretions of Blood by Drops from the Nose, he says, are bad; and, if the Blood be black and sooty, mortal." And *Galen*, in his Comment, says, "That a Distillation of black and pure Blood indicates, not only that the Humours are agitated and carried towards the Head, but that the Blood is extremely parched by a violent Heat, which has consumed all its Humidity, and wasted its Ichor." And he had said a little before, "That as all Distillations from the Nose are of a dubious Event, so, when they appear black and thick, they prove extremely pernicious." But, if such Excretions happen on one of the critical Days, they are most absolutely fatal, because on such Days all Signs, whether good or bad, are of greatest Moment towards a Prognostication. Agreeably to this, we are told, 1 *Prorrh.* 1. "That Distillations from the Nose are fatal, (in the Case before described) as at other Times, so especially on the fourth Day." And *Galen*, on the Place quoted, says, "A Distillation from the Nostrils is always a bad Sign; but, when it happens on the fourth Day, it indicates the extreme Malignity of the Distemper." For it seems as if Nature attempted to expel the redundant Matter collected in the Brain, but was too weak to effect what was intended. These Distillations, or Excretions of Blood by Drops, are no less fatal and destructive, when attended with other bad Signs. Thus, 1 *Prorrh.* 141. we read that "A small Distillation from the Nose, attended with a Deafness and Listlessness, is of dubious, dangerous Consequence." Where *Galen*, on the Place, reprehends the Author for saying, that such Distillations were of a dubious or difficult Nature, since they are all of them, as he says, mortal. Again, *ibid.* 126. "If there be a Distillation of Blood from the Nose, accompanied with a cold Sweat, and a Refrigeration of the Extremities, it is a fatal Sign." We conclude then, that such Distillations are always pernicious in the highest Degree, when attended with Deafness, Listlessness, Coma, Watchings, Deliriums, and the like; but especially in Phrenies: And this is confirm'd in the *Epidemics*, by the Examples of *Philiscus*, *Silenus*, the Wife

of *Dromædes*, and the *Parian*, to all whom this Symptom was fatal. *Prosper Alpinus de Præfag. Vit. & Mort.*

CONSUMPTIONS FROM HÆMORRHAGES.

Consumptions are frequently caused by Hæmorrhages, whether it be at the Nose, or from the Lungs by Coughing, from the Throat by Hawking, from the Stomach by Vomiting, from the Kidneys by the Passages of Urine, from the Hæmorrhoids, or Vessels of the Womb, in the ordinary monthly Purgations, or difficult Labour, or lastly, from Wounds, where there happens a plentiful and long Flux of Blood, from the Opening of the large Blood-vessels. For altho' frequent and moderate Bleeding (as every ignorant Fellow and Barber knows) will make one grow fat; forasmuch as the emptying the Vessels with a moderate Hand, makes room for a greater Quantity of new Chyle, whereupon the Mass of Blood growing richer, is render'd more fit for Nourishment, and consequently the Appetite is excited; yet every immoderate and long Bleeding impoverishes the Blood, and creates an hectic Heat in the Spirits and solid Parts, thereupon destroying the Appetite, and bringing the whole Body into a Consumption and Leanness.

In this Case the Bleeding must be stop't as soon as may be, and the Return of it is to be prevented, by incassating, opiate, and glutinous Medicines. As, for Example: Let strong Ligatures be made upon the Arms and Thighs; if it be necessary, and the Strength of the Patient will bear it, let a Vein be open'd with a Lancet, and Blood taken away frequently, but in a small Quantity, to divert the present Flux of Blood, and to prevent the Return of it. If the Part where the Blood breaks out will admit of it, let *Galen's* styptic Plaster, the Royal Styptic, cold Oxyerate, Ink, the Ashes of human Hair, lightly burnt in a Retort, and made into the Form of a Poultrice with Vinegar, true Bole, Dragon's Blood, and other Things of that Nature, be in a convenient Manner presently applied, and often renew'd.

Inwardly let the Patient take, three or four times, twenty or thirty Drops, or more, of the Royal Styptic, in a Draught of Milk-water; also five or six Spoonfuls of the clarified Juices of Plantain and Nettles: Or let him frequently take the following Linctus out of a Spoon.

Take of the Syrup of Purslain, three Ounces; true Bole, Dragons Blood, Troches of burnt Ivory, Sealed Earth, of each two Scruples; Japan Earth, a Dram; of Gum Tragacanth, dissolved in Plantain-water, a sufficient Quantity: Mix them up into a Linctus.

Or let him take the Quantity of a Nutmeg of the following Electuary.

Take of the Conserve of red Roses, an Ounce; Troches of Amber, three Drams; true Bole, Dragon's Blood, of each half a Dram; Syrup of Myrtles, a sufficient Quantity; mix them up into an Electuary.

Let him also take every Night, five or six Spoonfuls of the following Julap, shaking the Bottle.

Take of Plantain-water, six Ounces; small Cinnamon-water, three Ounces; distilled Vinegar, half an Ounce; true Bole, Dragon's Blood, of each half a Dram; *London* Laudanum, three Grains; Syrup of Myrtle, an Ounce and an half: Mingle them, and make a Julap.

The Flux of Blood being thus sufficiently stop't, and cured, we are to use our most diligent Endeavours, that the Blood may be quicken'd, replenish'd with such new Chyle as abounds with sweet and nutritious Juices, and that the feverish Heat (if there be any) may be extinguish'd, to prevent a Consumption. And therefore the Patient is to be nourish'd with the frequent taking of Jelly-broths, poached Eggs, and Variety of Food that affords good Juices, and is both easy to be digested, and most grateful to the Stomach. Nevertheless he is to abstain from Wine, and from Things that are salt, or have Spice in them, lest they increase the Heat of the Blood, which was before too hot, from the Defect of its nutritious Juice. And because this Sort of Patients, as all that are upon the Confines of a Consumption, are subject to Anger, to Sadness, hypochondriacal Oppressions, hysteric Fits, and to a Want of Appetite, whereupon they can neither take nor digest much Food, and, consequently, are incapable of making up the Loss of that Blood which has been spent; therefore the sick Person ought to be diverted and humour'd by his Friends, and to be sent, as soon as may be, into a free and wholesome Air, which I have, being taught from a great deal of Experience, observed to conduce more than any Thing of Medicines, to the comforting and fortifying of the Nerves and Spirits, to the Recovery of an Appetite, and a cheerful Mind, and, consequently, to the preventing of an approaching Consumption.

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But if the Patient seems, either thro' his own Neglect, or the sudden Advances of the Distemper, to be affected with a hectic Heat, and some Degree of a Consumption from his Bleeding; then let the Physician make it his whole Business, perfectly to put out this Flame, as soon as ever he can, with the Help of the *Peruvian* Bark, given in a large Quantity, the Efficacy of which I have often found to be wonderful in this Case: Afterwards, if it be necessary, let the Patient be put into a Milk-diet, or upon the Use of the chalybeate Waters: But he must forbear the Use of all purging Medicines. And some Benefit may be reasonably expected from the giving of Crabs-eyes, Coral, Pearl, and other such kind of altering and sweetening Medicines. *Morton's Phorbologia.*

HÆMORRHOIDALE, or HÆMORRHOIDALIS HERBA. A Name by which the *Chelidonium minus* is sometimes called.

HÆMORRHOIDES, from *ἄιμα*, Blood, and *ῥέω*, to flow. The Piles; that is, a Discharge of Blood from the Hæmorrhoidal Veins about the Anus, and *Intestinum Rectum*. See **HÆMORRHAGIA**.

Every liberal Discharge of Blood from the Veins of the Anus is not to be accounted excessive and preternatural; but, in order to form an Estimate of this Circumstance, we are carefully to consider the Vessels, the Habit of Body, the Strength, the Age, and the Constitution, of the Patient; for it frequently happens, that the Discharge of a certain Quantity of Blood proves salutary and beneficial to some; whereas the Evacuation of an equal Quantity, proves hurtful and injurious to others: Nor is every hæmorrhoidal Discharge, tho' larger than usual, and excited by the increased Quantity and Commotion of the Blood, to be esteem'd a Disease; but only such a Discharge as continues long, impairs the Strength, destroys the Appetite, the due Digestion of the Aliments, Nutrition, and the other Functions of the Body, and, consequently, lays a Foundation for violent chronical Disorders.

Excessive hæmorrhoidal Discharges are generally preceded, and accompanied, with a heavy and oppressive Pain of the Back and Loins; sometimes a Stupor of the Legs; a Constriction of the external Parts, with a slight Horripilation, and a Subsiding of the Vessels; a hard and contracted Pulse; a Dryness of the Mouth and Fauces; a small Discharge of Urine, which is frequently pale; a Sense of Weight in the Anus, extending itself to the Perinæum, a Weakness of the Stomach, Flatulences in the lower Part of the Abdomen, a frequent Stimulus to discharge the Urine, and go to Stool, on which Occasion, a white and bilious Mucus is sometimes discharg'd. Besides, Persons pretty far advanc'd in Years, and such as are weak, are afflicted with a *Procidentia Ani*.

In the Beginning of these excessive Discharges, the Blood evacuated is generally black, and pretty grumous, and sometimes eliminated from the varicose Veins, in Pieces as large as the Palm of the Hand. After this, a red Blood is discharg'd; then a Blood highly serous, and sometimes pituitous, or a Mucus, resembling the White of an Egg. The Quantity of the Blood discharged is sometimes surprisingly large: Thus *Montanus* knew an Instance, in which two Pints were evacuated every Day: And *Panarollus* saw an Instance, in which one Pint was daily discharged. This Evacuation often continues for a considerable time, twenty Days, for Instance, a Month, and forty-five Days, as is certain from the Observations of Authors of undoubted Veracity.

Every Evacuation of Blood from the *Intestinum Rectum* is supply'd from the hæmorrhoidal Vessels; but the external hæmorrhoidal Vessels rarely flow profusely, but readily degenerate into painful Varices, which, when open'd, discharge Blood, though seldom in large Quantities. But the internal hæmorrhoidal Vessels, which are Ramifications of the splenic Branch, and are distributed to the interior Substance of the *Intestinum Rectum*, and the *Sphincter Ani*, together with the small Arteries arising from the inferior meseraic Vessels, not only discharge a larger Quantity, but, when suppress'd, generate those Diseases which arise from Disorders of the Liver, Spleen, Pancreas, Mesentery, and Intestines.

This Discharge is immediately and directly made from the Ramifications of the Arteries, distended by too large a Quantity of Blood, and at last ruptur'd. Nor is it to be absolutely denied, that often a large Quantity of Blood, which is frequently peccant, is discharg'd from the hæmorrhoidal Vein; for Valves preventing the Egress of the Blood are there wanting; and tho' there were such Valves, yet the varicose State of the Veins must necessarily induce a great Change with respect to their Situation.

'Tis universally agreed, that this salutary Evacuation from the Veins of the Anus is owing to a difficult Circulation of the Blood through the hæmorrhoidal Veins, in consequence of their perpendicular Situation, and its difficult Return to the *Vena Porta*, and the Liver; and that the Discharge actually happens, when the Extremities of the Vessels, in the *Intestinum Rectum*, are so distended by the Blood accumulated in them, as at last to be ruptur'd. Hence the Physician is in no Error, who deduces

duces the Cause of an excessive and prejudicial hæmorrhoidal Discharge from an obstructed Circulation of the Blood through the hæmorrhoidal and meseraic Veins, as also through the Liver itself. This is sufficiently obvious from anatomical Observations, by which we are certain, that the Ramification of the hæmorrhoidal Vein, which runs along the Colon to the Anus, has been found thrice as large as in the natural State, in those who have died of excessive hæmorrhoidal Discharges; for the greater the Afflux of Blood is through the Arteries, and the slower its Reflux through the Veins, the more the Fibres are relax'd by the Blood and Serum collected in the Vessels; which, being distended, and their Tone gradually more and more impair'd, lay a Foundation not only for a long Continuance of the Disorder, but also for its returning more readily than it would otherwise have done.

Whatever things, therefore, generate a Redundance of Blood, and stop its Passage through the Ramifications of the *Vena Porta*, or invite it in too large Quantities to the hæmorrhoidal Veins, dispose to the hæmorrhoidal Discharge; which is either moderate or immoderate, according to the Strength or Energy of the Causes. Hence it is, that those who are of a lax, spongy, and pinguious Habit of Body, furnished with a large Number of Vessels turgid with Blood, who live delicately, and lead a sedentary Life, without Exercise, or who have sprung from Parents affected with this Disease, are most subject to excessive hæmorrhoidal Discharges. For the same Reason it happens, that acrid Purgatives, Preparations of Aloes, frequently used; the too liberal Use of hot and aromatic Aliments, as also of sweet and strong Wines; a Neglect of habitual Venesection; the Passions of the Mind, especially Anger, and long-continued Grief; violent Commotions of the Body, especially by riding, and other things of a like Nature, contribute very much to the Production of this preternatural Discharge of Blood from the Veins of the Anus.

Besides, this Disorder, when excessive, is not free from Danger, since by its means the Strength is impair'd, the Body wasted, the Thighs oppressed, the Sleep render'd unsound, the Præcordia rack'd with a Sensation of Weight, the Abdomen render'd tumid with Flatulences, and the Pulse weak and trembling. But when the Disorder is long continued, the Ancles become tumid, as also the Eyes and Face; the Colour of which is livid, or of a leaden Colour: Respiration becomes difficult, and at last the Disorder degenerates into a Cachexy, a Dropsy, or a slow hectic Fever; so that it is obvious, that very violent Disorders may arise from a Defect of Blood; and that the very Treasure of Life consists in a Stock of Blood, which is neither peccant in Quantity nor Quality.

Excessive hæmorrhoidal Discharges are more likely to prove fatal, when brought on by a Tumor of the Liver or Spleen, an Inflation of the Hypochondria, accompanied with a costive State of the Belly, or a beginning Cachexy and Dropsy; for, in these Cases, the Obstructions are increas'd and confirm'd, and the present Quantity of the Blood and Juices augmented: Hence the Disorder proves chronic, and, at last, terminates in an Atrophy, or a slow hectic Fever, accompanied with extreme Loss of Strength.

Frequently observ'd, that excessive hæmorrhoidal Discharges, also, terminate in Dropsies; especially in phlegmatic Patients, and such as are of a lax Habit of Body; but, if this Disorder succeeds a Dropsy arising from an Induration of the Liver, as an infallible Sign, that Death will soon ensue.

THE CURE.

As this Disorder may proceed from various Causes, so there must be various Intentions of Cure pursued, and different Remedies made Choice of.

It frequently happens, that when, in plethoric Bodies, the hæmorrhoidal Discharge, usual at other times, is, for some time, stop'd, it not only appears again suddenly, upon any violent Commotion either of Body or Mind, the liberal Use of spirituous Liquors, too hot Baths, or upon taking Medicines increasing the intestine Motion of the Blood, but continues long, and is attended with a large and strong Pulse. When this is the Case, the first Step to be taken is, to divert the Impetus of the Blood: For this Purpose Venesection in the Arm, or an Immersion of the Arms in a tepid Mixture of Water and Wine, are of singular Service. Then we are to use such things as check the excessive intestine Motion of the sulphureous Parts of the Blood, especially things of a diluting and refrigerating Nature, such as the drinking cold Water, especially of the chalybeate or temperate mineral Kind; Whey, made with Citron, or Lemon-juice, the Waters of Plantain, Strawberries, Sorrel, and Wood-sorrel; a Decoction of Hawthorn mix'd with Citron-juice, Tincture of Roses prepar'd with Spirit of Vitriol, and Julaps prepar'd of these, with Syrup of Roses. The same Intention is, also, excellently answer'd by Preparations of Nitre, either simply purified, or artificially prepar'd of Spirit of Nitre and Salt of Tartar, exhibited in Powder, with absorbent and corroborative Substances, or in common Drink. Those anodyne Substances are, also, of singular Service, which moderate the impetuous Motion of the

Solids and Fluids, and, at the same time, alleviate Pains and Spasms. The most considerable of this Kind are the anodyne mineral Liquor; the *Spiritus Nitri dulcis*, duly prepar'd; the Waters of common Chamomile-flowers, and of the Tops of Yarrow; the Seeds of white Poppies, the Syrups of both Poppies, the Waters and Extracts of Poppies; and, if strong Anodynes are to be used, Seeds of white Henbane will answer the Intention.

When, together with a Loss of Strength, and an injur'd State of the nobler Functions, a large hæmorrhoidal Discharge continues for a long time, and the Viscera begin to be tainted, whilst, at the same time, the Blood is rather aqueous and serous, than fibrous, and of a due Consistence; those Medicines are highly beneficial, which gradually and mildly carry off, by Stool, the peccant bilious Juices; and, at the same time, invite the Humours from the *Intestinum Rectum*, to the Coats and Glands of the other Intestines. The most efficacious of these are Preparations of Rhubarb, with Currans and Tamarinds; or, if the Body is bilious, with Cream of Tartar, exhibited in a Potion render'd agreeable by an Eleosaccharum, prepar'd with the Oil of Citron. Mild Diaphoretics are, also, of singular Service, by correcting and expelling the acrid Humours, especially when any thing of a scorbutic, or purple, or exanthematous Taint is deeply rooted in the Blood and Serum. Among the Medicines of this Kind are calcin'd Hawthorn, the fossil Unicorn, diaphoretic Antimony, Wine-vinegar mix'd with Crabs-eyes, the Waters of Goat's-rue, Elder-flowers, and Carduus Benedictus, Treacle-water, the Mixture Simplex, and the Diacordium of *Fracastorius*, which may be reduc'd to the Form of a Potion. My anodyne mineral Liquor, says *Hoffman*, mix'd with a fourth Part of the *Liquor Bezoardicus Buffi*, is of singular Service; as also an Infusion of Yarrow, Paul's Betony, Mouse-ear, and others, drank either in Bed, or a warm Room, with an Intention to sweat. We must not, for this Intention, forget to recommend a small Dose, half a Grain, for Example, of Camphire, especially when mix'd with nitrous and bezoardic Powders; for by these means the acrid and caustic Matter, which is frequently the Cause of those Spasms, which render the Circulation of the Blood unequal, and induce large Hæmorrhages, is obtunded and eliminated, whilst, at the same time, the Virtues of the Astringents and Anodynes are somewhat corrected, lest they should prove injurious. It was, therefore, no bad Practice of former Physicians to mix Camphire with their principal Preparations, for stopping Hæmorrhages, though in a very small Dose, as in the *Species de Hyacintho*, the *Diatrion Santal*, the *Diatrion Abbatis*, the *Trochisci de Carabe*, the *Sperniola Croli*, and the celebrated Powder of *Hennius* for stopping Hæmorrhages.

In that more obstinate and difficultly cur'd Species of the Disorder, which arises from an Obstruction, an Infarction, or increas'd Bulk, of any of the Viscera; such as the Liver, Spleen, and, in Women, the Uterus; if there is still any Place for the Means of Relief, such Medicines are to be chosen as resolve the Obstructions, without throwing the Humours into too violent a Commotion: Among these, the *Pilula de Bdellio de Mesue* were long ago extol'd, for their Efficacy and Safety, by *Foreflus*, *Solennander*, and *Riverius*. Excellent Effects are also produced by the Pills prepar'd, according to *Beecher's* Directions, of bitter Extracts, and temperate Gums; only the Extract of Rhubarb is in a pretty large Quantity to be substituted instead of that of the Aloes; and nitrous Powders are to be interpos'd, according as the Condition of the Patient requires them. But nothing is more efficacious in removing Obstructions, than aqueous and diluting Substances. Hence, in Cases of this Nature, we properly recommend temperate and subtle mineral Waters; the best of which are those at *Utrecht*, *Widdungen*, and the *Selteran* Springs, drank either with or without Milk. And, certainly, a prudent and moderate Use of these Waters for some Months, in Conjunction with a proper Regimen, and the alternate Use of the above-mention'd Pills, as also of a Draught prepar'd of the balsamic Elixir, render'd more efficacious by some temperate chalybeate Medicine, is, of all others, the most effectual Means of Relief. *Montanus* orders Broth, prepar'd of Fowls, to be copiously drank three Hours before Dinner; and affirms, that, by this means, he had cur'd many of this Disorder. But such Broths will be still more efficacious, if they are prepar'd with the Roots of Sorrel, Succory, or Vipers-grass; or let some temperate chalybeate Medicine, such as the *Tinctura Martis*, prepar'd with Juice of Apples, be exhibited with an Extract of Cascarella, made with Water, every Morning, drinking copiously of the above-mention'd Broth.

Among the principal Causes of a too copious hæmorrhoidal Discharge, we may justly reckon a Want of a due Tone in the *Intestinum Rectum*, together with its component Membranes and Vessels: For this Reason, such Medicines are, also, to be used as restore the Strength of Parts too much weaken'd and relax'd. For this Purpose we may safely use the *Species de Hyacintho*, and the *Trochisci de Carabe* of *Mesue*: And, of chalybeate Substances, the Blood-stone, reduced to a fine Powder, the *Tinctura Martis* of *Zwelfer*, highly subtle antimonial Crocus of

Mars,

Mars, exhibited with old Conserve of Roses, as also the Tincture of chalybeated Flowers of Sal Ammoniac, prepar'd with highly rectify'd Spirit of Wine, and mix'd with an equal Quantity of a bitter Elixir. Among resinous and balsamic Medicines, the most efficacious are, Amber prepar'd or alcalified, and the Extracts of Cascarella, and red Sanders. If the Disorder admits of a Cure, these Medicines, exhibited prudently, in proper Doses, and in a due Order, afford great Relief.

In order to obtain the design'd Effect, external Applications of an astringent Nature are also to be used. If, therefore, the varicose Veins of the Anus, without any Evacuation of the Excrements, discharge large Quantities of Blood, attended with Syncope, and a Danger of Death, we may safely apply Colcothar of Vitriol, or the *Crepitus Lupi*, especially if milder Applications have been previously used without Success; such as Decoctions of Balauftine-flowers, red Roses, Myrrh, Plantain, Pomgranate-rinds, and Peruvian Bark, prepar'd with Red-wine, and, after the Excrements are discharg'd, applied to the Intestinum Rectum by means of a Sponge. When the Force of the effluent Blood is check'd, to the Os Sacrum, Perinæum, and Pubes, we must frequently apply Epithems prepar'd of Mint, Sumach, the Flowers of red Roses, and St. John's-wort, the Shavings of red Sanders, Mastic, Cardamoms, and Peruvian Bark, boil'd in Red-wine. This same Decoction, injected into the Anus by means of a Syringe, is of singular Service in restoring the Tone of the *Intestinum Rectum*.

In the Cure of violent hæmorrhoidal Discharges, Venesection is to be premised, and the Primæ Viæ cleansed, either with recent Cassia, or the best Rhubarb, exhibited in a Decoction: Then both internal and external Medicines, of a corroborative and gently astringent Nature, may be safely used; for, in consequence of the violent Effusion of Blood, so great a Weakness is produced, that 'tis rarely safe to use drastic Medicines; for, 'tis a general Rule in Medicine, that the weaker Nature is, the more mild and approaching to a dietetic Nature the Medicines ought to be.

Nitrous, acidulated, and refrigerating Medicines, as they may be easily born, when there is a violent Heat and Commotion of the Blood, so the Use of them is less safe, when the Blood is already much exhausted, the Strength impair'd, and the Stomach weaken'd, especially in symptomatic hæmorrhoidal Discharges arising from Obstructions of the Viscera.

Venesection is not to be prescrib'd at random, and without knowing the particular State of the Patient; because the just Quantity of the Blood taken away is a Circumstance of the highest Importance; for, in the Beginning of the Disorder, if the Body is plethoric, and full of Blood, a large Quantity may be taken from a Vein in the Arm, in order to make a Derivation. But when a large Quantity of Blood is spontaneously discharg'd before, the Quantity taken must be small, and the Operation repeated prudently, and at proper Intervals.

Hippocrates prudently advised, that, in case of violent hæmorrhoidal Discharges, one Vein should be kept open, if the others were closed, for fear of a Dropsy, or a Consumption, if the Blood should recur to the Lungs or Liver. Though this Maxim is most immediately to be understood of the external Veins closed, either by the actual Cautery, or by the Application of Styptics, yet it may be justly applied to the internal Veins, which frequently discharge a large Quantity of Blood; and this is so much the more necessary, because these Veins cannot be closed, that is, the Hæmorrhage cannot so easily and speedily be stop'd, without the Use of efficacious internal Medicines, which ought to be cautiously and judiciously attempted; otherwise the Patient will necessarily be injur'd, according to the Remark of *Hippocrates*.

From a due Consideration of these Circumstances, 'tis sufficiently obvious, that Astringents ought not to be used without the highest Caution: Nor are they beneficial in the Beginning of the Disorder, much less when the Blood and Strength are exhausted; since, in weak and delicate Habits, they rather excite spasmodic Disorders, Convulsions, Deliquiums, violent Uneasiness of the Præcordia, accompanied with Tremors and Palpitations of the Heart. But if such Substances, as check the Violence of the Disorder, are absolutely necessary, 'tis expedient not to obtain this End by large Doses, lest they should produce unlucky Effects. Diluting, correcting, and gently laxative Medicines are, also, to be used; the most efficacious of which are Asses Milk, and sweet Whey; but these Diluents are most effectual, when taken together with Chalybeates in a liquid Form.

When a sudden Stoppage of the hæmorrhoidal Discharge is succeeded by an Uneasiness of the Præcordia, Inflations, Restlessness, and Difficulty of Breathing, it is to be recal'd by mild Laxatives, and emollient Clysters, and Suppositories.

Hypnotics, Opiates, and Narcotics, are also to be used cautiously, since, when unreasonably administer'd, they have a Tendency to induce Madness. But if the Use of Medicines of this Kind is indicated, the most proper are the *Pilula Wilde-gausti*, which may also be exhibited with Success, when an intense Pain and Spasms about the first Vertebra of the Loins

excite a violent Effusion of Blood, which is, therefore, to be check'd.

In no Disease is an accurate and cautious Regimen more necessary than in this, since, in consequence of a Neglect in this Particular, the most efficacious Remedies will not produce the desir'd Effect. For this Reason the Patient is carefully to abstain from Summer Fruits, Pulses, Sallads, Preparations of Milk, Fleshes which are old, salted and indurated in Smoak, Aromatics, Garlick, Onions, strong Wines, and all spirituous Liquors. He must, also, abstain from Hunting, and all violent Commotions of Body, whether by Riding or Gestation, especially in rough and uneven Places; and a gentle Exercise, rather affecting the superior than the inferior Parts of the Body, is to be used, in a pure and serene Air. But nothing is more prejudicial to Persons labouring under this Disorder than violent Commotions of Mind, especially Anger and Dread; for which Reason all Incentives to these Passions ought to be carefully and industriously avoided. 'Tis also of great Importance, that the Patient should use proper Liquors for Drink. I myself, says *Hoffman*, both with a preservative and curative Intention, generally prescribe Water, or Whey, Decoctions of red Sanders, with Mastic and Cinnamon; as also Julaps prepar'd of a Decoction of Hartshorn, Syrup of Citron-juice, with the Addition of a few Drops of the Oil of Cedar, or a few Ounces of Citron-flower-water.

When the Disorder is once remov'd, due Pains are to be taken, in order to prevent its Return. This Intention is most commodiously and effectually answer'd by the Regimen already prescribed; by Venesection three or four times instituted every Year; by cleansing the Primæ Viæ once a Month; and by the prudent Use of Mineral Waters, or only of chalybeated Milk. And, lastly, all such Aliments and Laxatives, as excite Pain, are carefully to be abstain'd from, because they excite an Inclination to Stool. *Frederic Hoffman*. See EMMENAGOGA.

CHIRURGICAL TREATMENT OF THE HÆMORRHOIDS.

Though some are desirous of having this Flux moderated or stop'd, a skilful Surgeon will be so far from complying, that he will lay before them the many Inconveniences which must attend such a Practice. If, however, they persist, or the Flux is excessive, then he may, at the same time applying other proper Remedies, stop up some of the Mouths, leaving one or two open, according to the Direction of *Hippocrates*, *Aphor. 12. Sect. 6*. He must proceed in the following Manner; first, bleed plentifully, then give gentle cooling Purges, and, lastly, a Clyster, five or six Hours before the Operation.

The Patient must be laid on his Belly, either upon a Bed, or Table, so that his Feet may touch the Ground; or, according to some, on the Side of a Bed, as for a Clyster; then his Legs and Nates must be so distended, by two Assistants, that the Surgeon may have free Access to, and Inspection of, the Parts. Next, if there are no Tubercles, he is to tie up the bleeding Veins with a crooked Needle and Thread; if there are, he is to take hold of the Parts preternaturally tumefied with his Forceps, and cut them off, tying them up likewise; but he must be sure to leave one Vein, and that the smallest, still open. Lastly, if the Profusion does not stop spontaneously, in a short time, he may apply Styptics, scrap'd Lint, and Compresses, with the T Bandage. In the subsequent Dressings he may use cicatrizing Medicines; and, if any thing foreign still remains, he must remove it by the Scissars, or a Caustic. When these bleeding Tubercles were seated very high in the Rectum, the Ancients recommended an actual Cautery; but this was severe and dangerous: I, therefore, prefer the Speculum Ani, (*Tab. LV. Fig. 15.*) which dilates the Parts, in such a manner, that the Tubercles may be tied, or the open Veins stop'd by Lint, impregnated with Astringents: This, with the Application of proper internal Medicines, will restrain a profuse Hæmorrhage in these Parts; though it is seldom necessary to come to the last Operation.

Sometimes the Veins, dispers'd about the Rectum and Anus, are so much dilated with Blood, as to be very painful, and raise Tubercles as large as Peas, Grapes, or Eggs; sometimes, too, they extend to a Finger's-length. These we call the Blind Piles, and distinguish them from other Tubercles of the Anus by their Colour, and Resistance to the Touch; for they appear livid, or black, from the Stagnation of a thick Blood; and, when press'd by the Fingers, feel like a Bladder fill'd with Liquor, which Circumstances are not observ'd in the others. See ANUS. These distended Vessels vary; for some are soft, giving little or no Pain; others hard, very painful, and inflam'd, rendering the Patient unable to sit, stand, or walk, and sometimes even bring on fainting Fits.

The blind Piles generally occur in Men of a costive, plethoric Habit, and such whose Constitutions incline them to the bleeding Piles; and Women are most subject to them from a difficult Labour, a Suppression of the Menstrua, Gestation, or a sanguine Habit. In all these, the Veins sometimes become so turgid as to discharge their Blood, and from blind become bleeding Piles, with so profuse an Hæmorrhage as to endanger the Patient's Health. The blind Hæmorrhoids are sometimes attended

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tended with such intense Pains as to cause a Spasm of the Anus, and a Difficulty of Sitting, even to that Degree as not to admit of the Administration of a Clyster. Sometimes they produce troublesome itching Ulcers, especially if they do not burst within three or four Days; and very often give Birth to an Abscess, or stubborn Fistula.

When the blind Piles are neither large, nor troublesome, they may be left to Nature; but when they encompass the Anus like a Bunch of Grapes, so that the Patient can neither sit, ride, nor go to Stool without Difficulty; if they do not submit to Spirit of Wine, the most speedy Remedy is gradually to remove those which are very full and large, by a Ligature; but, if there is a violent Inflammation, it is proper, first, to bleed, and give, internally, tempering and laxative Medicines, prescribing a regular Diet, while discutient and emollient Fomentations are externally applied. The same End is answer'd by the *Unguentum Nutritum*, *Unguentum Linariæ*, fresh Butter, Oil of sweet Almonds and the like, applied to the Parts.

But Linen, dipt in warm Spirits of Wine, and emollient Clysters, are frequently of infinite Service; and, when they are not effectual, Leeches may be applied, to exhaust the Blood; if they are not at hand, or the Parts inflam'd, the Lancet must be us'd; and, after bleeding in proportion to the Patient's Strength, the Dressings must be made of Lint, with Compresses and the T Bandage: These are to be renew'd, till the Disorder is completely cur'd. Sometimes the Piles are so high in the Rectum as to render the Use of the Speculum Ani necessary (see *Tab. L.V. Fig. 15.*) When the Anus is properly dilated by this Instrument, they must be scarified with a Lancet, or divided with Scissars; for thus the inspissated noxious Blood will be discharg'd, and the Pains reliev'd. Sometimes these Wounds are so far from healing, that of blind they become bleeding Piles, and the Patients, especially if they are caustic, always, or very often at least, discharge Blood with their Excrements, which Flux, though not entirely free from Trouble, should not be suppress'd, while it is moderate, as it lessens the Pains, conduces to the Patient's Health, and prevents or removes many Distempers, as the hypochondriac Melancholy, Disorders of the Kidneys and Bladder, Gout, and ischiadic Pains. For this Reason, many Moderns recommend, and excite, this Evacuation. But as this often induces many Inconveniences, and Diseases, I prefer other Methods of Cure.

The best Method of preventing these Piles, is a regular, temperate Diet, with bleeding twice or thrice in a Year, and oftener, if requir'd; for these Evacuations will lessen the Quantity of Blood, and, consequently, remove the Cause. Internally may be taken some tempering Powder, or a Decoction, of Yarrow, drank like Tea; carefully avoiding all heating and astringent Medicines, such as Aloes, Myrrh, and Saffron, and all Aliments of the like Quality, Wine, overloading the Stomach, Anger, violent Exercise, profuse Venery, and Riding. If, notwithstanding this Regimen, the hæmorrhoidal Veins should begin to swell, resolvent and tempering Medicines should be given internally, while, externally, Fomentations and Cataplasms may be applied; if the Pains are acute, then Recourse must be had to Leeches, or the Lancet, as before directed. *Heister. Institut. Chirurg.*

Sulphur, and its Preparations, are much recommended, taken internally, for the Piles; and it is certain, that the Flowers, or Milk of Sulphur, or crude Sulphur powder'd, are very effectual in removing an habitual Colliveness, which is a frequent Cause of hæmorrhoidal Discharges; not to mention its alterative Quality.

It has been observed by Practitioners, that a Discharge of a few Ounces of Blood from the hæmorrhoidal Vessels affords greater Relief in many Disorders, both acute and chronical, than any equal, or even a much larger Quantity, taken artificially from any other Part. That the Reason of this may be evident, it is necessary to remark, in this Place, that all the Veins which convey the Blood from all the Contents of the Abdomen, unite near the Liver, and form the Vena Portæ, which is very different from any other Vein; for it performs the Office of an Artery, conveying Blood to the Liver, for the Secretion of the Bile, in the Manner describ'd under the Article *HEPAR*. The hæmorrhoidal Vein immediately empties itself frequently into the Splenic Branch, and sometimes into the Mesenteric Branch, from this Structure it is obvious, that when any of the Viscera of the Abdomen labour under a Plethora, or Fullness of Blood, or are obstructed in such a manner as not to be capable of conveying the due Proportion of Blood, without Oppression, a Discharge of a Portion of Blood from the hæmorrhoidal Vessels affords immediate Relief to the labouring and oppress'd Viscera, which could be brought about by no other means. Nor is this all the Advantage of such a Flux; for it neither requires a Demonstration to prove, nor great Abilities to conceive, that when the Viscera of the Abdomen, on any Account whatever, are render'd incapable of receiving a due Proportion of Blood propel'd from the Heart, through the Arteries, the descending Trunk of the great Artery, which conveys Blood to the abdominal Viscera, must necessarily receive less Blood than in an healthy State; and, in consequence of this,

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the ascending Trunk, which carries Blood to the Head and Brain, must receive more; and hence, all those Actions which depend upon an entire State of the Brain, must be proportionably disturb'd. A Discharge, therefore, from the hæmorrhoidal Vessels makes a true Revulsion from the Head. Hence the Reasons are evident, why an hæmorrhoidal Discharge frequently relieves hypochondriac Disorders, Melancholy, Madness, Gout, Asthma, Diseases of the Kidneys and Bladder, and ischiadic Pains.

It must, however, be remark'd, that Discharges of Blood from the hæmorrhoidal Vessels are not always salutary, but sometimes symptomatic, and of very bad Presage. This happens when very considerable Obstructions are found in the Liver, Spleen, Pancreas, Mesentery, or any Part contain'd in the Abdomen; for on these Occasions the obstructed Bowel is incapable of receiving the due Proportion of Blood, which, therefore, bursts out from the hæmorrhoidal Vessels, and prognosticates the Destruction of the Part.

It were to be wish'd, that we could, in Practice, regulate the hæmorrhoidal Flux; that is, procure it when we are certain it would be salutary; and check it when redundant, or symptomatic, without running the Hazard of doing an Injury to the Patient; for then we should be able to afford sudden Relief, in Cases where we now find it attended with much Difficulty. Thus in atrabilious Constitutions, in all Diseases attended with a Depravation of the Imagination and Reason, in acute Disorders, verging towards a Delirium, if we could, at pleasure, excite the hæmorrhoidal Flux, it would contribute greatly to a Cure. It would farther be of Use, if we could restore this Discharge, when a Suppression thereof is attended with bad Consequences, or when an Eruption of Blood from some less convenient Part ensues.

The Medicines contributing to excite the hæmorrhoidal Flux are specify'd under the Article *EMMENAGOGA*. But the principal Methods of procuring this Discharge are to apply warm relaxing Topics to the hæmorrhoidal Vessels, of Water, Oil, Honey, and emollient Ingredients, either by way of Clyster, Vapour, or Fomentation; and to rub the Parts, after these Applications, with rough Cloths, or Fig-leaves.

HÆMORRHOSCOPIA, *αἱμορροσκοπία*, from *αἷμα*, Blood, *ρεῖω*, to flow, and *σκέπτομαι*, to contemplate. An Inspection and Contemplation of the Blood let out of the Vessels, in order to form a Judgment from thence, of the State of the Body.

HÆMORRHOS, *αἱμορροῦς*. The Name of a poisonous Serpent.

Paulus Aegineta, L. 5. C. 15. informs us, that the Bite of this Serpent is attended with excessive Pains, and Hæmorrhages; if there happens to be a Cicatrix in any Part of the Body, it breaks, and Blood flows from it; concremented Blood is mix'd with the Stools; Blood is cough'd up from the Lungs, and the Patient expires, vomiting of Blood.

As to the Cure, this Author says, that most of the Antients esteem'd it irremediable; but if, says he, we are destitute of any specific Remedy, we may, at least, try common Methods. Thus we may scarify, burn, or even cut off the Part which receives the Wound, provided it be one of the Extremities: After these, apply acrid Cataplasms to the Part. All acrid Substances are good, taken internally, especially salted Aliments; unmix'd Wine, also, and Baths, are proper. But all these things must be immediately call'd in to our Assistance, and perpetually persisted in; for, if the Disease once appears, all Remedies are in vain. Vine-leaves boil'd, and made into a Cataplasm with Honey, are, also, to be apply'd to the Part; and the Head of the Serpent burnt is to be taken internally; or Garlick, with *Oleum Irixi*; or let the Patient eat Raisins.

Hippocrates calls those large Veins, which, when open'd, discharge Blood copiously, *Hæmorrhous*, *αἱμορροὺς φλέβας*.

HÆMOSTASIA. An universal Stagnation of Blood from a Plethora.

HÆMOSTATICA, from *αἷμα*, Blood, and *ἵστημι*, to stop. Medicines which stop Hæmorrhages.

HÆRMIA. A sort of Indian Fruit like Pepper. It is esteem'd good for dispelling Flatulences, to fortify the Stomach, and is sometimes apply'd to the Uvula, when relax'd. *Lemery des Drogues*.

HAGAR, or *HAGIAR*. The Arabic Name for the Armenian Stone.

HAGIOSPERMON; that is, the Holy Seed. A Name for the *Semina Santonici*, Worm-seed.

HAGIOXYLON; that is, the Holy Wood, *Guaiacum*.

HAL. Salt. *Rulandus*.

HALATION, *ἁλάντιον*. The Name of a Medicine, consisting principally of Salts, mention'd by *Trallian*, *L. 3. C. 6.* and of another, describ'd by the same Author, *L. 12. C. 7.* which is cathartic.

HALCHEMIA. The Art of fusing Salts. *Libavii Alchym. Pharm.*

HALCYON. See *ALCEDO*.

HALCYONIUM, *Spuma Maris*, Offic. FROTH or FOAM OF THE SEA. This is an oleous or bituminous Substance found floating on the Sea. It is much controverted, whether this

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this is the Excrement, Sperma, or Milk, of some Sea Animal; or a kind of Zoophyte; or a Juice of some Sea Plant; or something of a bituminous Mineral Exudation from the Bottom of the Sea, converted into Foam by the Agitation of the Waves.

HALEC, Offic. Schrod. 5. 329. Charlt. de Pisc. 4. *Harengus*, Rondel. de Pisc. 1. 222. Schonef. Ichth. 36. Gesn. de Aquat. 402. Jonf. de Pisc. 2. Raii Ichth. 219. Ejusd. Synop. Pisc. 103. Mer. Pin. 185. *Harengus Flandricus*, Aldrov. de Pisc. 294. *Harengus Chalcidius Species*, Bellon. de Aquat. 271. THE HERRING.

The Parts of the Herring, used in Medicine, are, the Vesicles call'd *Anima*, and the entire Fish. The *Anima* are said to excite Urine, taken internally. Salted Herrings are sometimes apply'd to the Soles of the Feet in Fevers, with an Intent to derive the Humours from the Head, and mitigate the febrile Heat.

The Pickle of Herrings is used in Clysters, for Pains in the Hips, and a Dropsy; externally apply'd, it mundifies fetid Ulcers, stops the Progress of a Gangrene, and dissipates strumous Swellings. It is, also, of Service in a Quinsy, if the Parts affected are anointed with this, and Honey mix'd together.

Fresh Herrings, consider'd as a Food, are said to be very good Aliment, if used moderately; but, taken in Quantities disproportion'd to the Powers of Digestion, they produce a Putrefaction in the Stomach, of the alkaline Kind, and are attended with all the bad Consequences, mention'd in the Article ALCALY, of highly alcalescent Aliment. But pickled Herrings are very bad Aliment, the Flesh being render'd hard, and scarcely digestible by the vital Powers. These, however, are less injurious, than those which are salted and dry'd; these last being more harden'd, and, consequently, less easily digested.

HALELÆUM, ἀλέλαον. A Mixture of Oil and Salt, recommended by *Galen* for lax Tumors of the Joints. *Olaus Borrichius* has given this Name to a certain inflammable, saline, and sulphureous Liquid, distill'd from Snow, or Rain-water.

HALIÆTOS, HALIÆTUS, Offic. Aldrov. Ornith. 1. 187. Jonf. de Avib. 3. Caii de Animal. 85. Bellon. des Oyse. 96. *Haliætus sive Aquila marina*, Will. Ornith. 29. Raii Ornith. 59. Charlt. Exer. 70. Gesn. de Avib. 177. *Haliætus*, seu *Ossifraga*. Raii Synop. A. 6. *Haliætus*, seu *Osprey*, Mer. Pin. 170. *Nisus Veterum*. THE OSPREY.

The Marrow of the Bones is thought to be of Use in Fishing, in order to allure the Fish to any Place. This popular Error proceeds from a fabulous Story, that the Osprey, as it flies over the Water, lets fall a Drop of Oil, that allures the Fish to the Surface, which it then seizes. This Marrow of the Osprey is what is meant by *Oil of Aspre*. It is of no Use in Medicine.

HALICA. See ALICA.

HALICACABUM. See ALKEKENG.

HALICACABUM PEREGRINUM. A Name for the *Corindum*; folio ampliore; Fructu majore.

HALICES. Pandiculations after Sleep, or upon awaking.

HALIEUTICON. The Name of two Plaisters mention'd by *Aetius*.

HALIMAR. Copper. *Rulandus*.

HALIMUS, Offic. *Halimus Clusii*, J. B. 1. 227. *Halimus latifolius*, Ger. Emac. 523. *Halimus latifolius sive fruticosus*, C. B. 120. *Halimus latifolius*, sive *Portulaca marina incana major*, Park. 724. *Atriplex Halimus dista latifolia*, Raii Hist. 1. 194. *Atriplex latifolia*, seu *Halimus fruticosus latifolius*, Tourn. Inst. 505. Boerh. Ind. A. 2. 89. TREE-SEA-PURSLANE.

Dioscorides says, that the Leaves boil'd are used as Food. *Aetius* says, the Buds are used as Pickles. The Root, taken in the Quantity of a Dram, in *Hydromel*, mitigates spasmodic Pains, those attending Ruptures of the capillary Vessels in the Muscles, and the Gripes. *Dioscorides*, L. 1. C. 120.

HALINITRON, ἀλνιτρον. Nitre.

HALME, ἄλμη. Brine, or Salt-water, made for preserving Vegetable or Animal Substances from Putrefaction.

HALMYRAX. A sort of Nitre produc'd in the Valleys of *Media*, in very dry Weather, taken notice of by *Pliny*, L. 31. C. 10.

HALMYRIS, ἀλμυρίς. The Name of a Species of a Sea Cabbage.

HALMYRODES, ἀλμυρώδης. Salt, or saluginous. *Hippocrates* uses this Word as an Epithet for particular Sorts of Fevers, in which, as *Galen* explains it, the external Parts, when touch'd, communicate such an itching Sensation, as is perceiv'd from handling salt Substances. When apply'd to the Skin, it imports much the same; or, perhaps, a certain Roughness, as if it was salted. It is, also, us'd as an Epithet to many Excretions, when salt, and acrimonious. *Halmodes*, ἀλμώδης, implies the same.

HALO, in Anatomy, is the red Circle, or Arcola, round the Nipples, from its Similitude to the Circles form'd round the Sun, or Moon, call'd *Halo*.

HALOSACHNE, ἀλοσαχνη. The Foam of the Sea.

HALS, ἅλς. Salt. See SAL.

HALTERES. Heavy Masses of Stones, Lead, or Metal, us'd by the Antients in their Exercises. They seem to have been of two Sorts: One, which was held in the Hands, and us'd in Leaping, in order to bring the Body forwards, the Hands being projected at the Instant the Leap was taken. Others were thrown somewhat like the *Discus*. Or, as *Galen* says, the *Halteres* were

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laid on the Ground about an Ell distant from each other; then the Person to be exercis'd plac'd himself in the Middle betwixt them, and, stooping, took up that on the Right-hand, with his his Left; and that on the Left-hand, with his Right; laying them in their Places again, and repeating this several times, without moving the Feet. This Exercise is recommended for several Medicinal Purposes. But, as it is not at present in Use, I shall refer the Reader to *Hieronymus Mercurialis's* *Treatise de Arte Gymnastica*.

HALYPHÆUS. A Name for the *Quercus*; *Calyce ecbinato*; *Glande majore*, C. B. P. See ÆGILON.

HAMALGAMA. The same as AMALGAMA; which see.

HAMIA. The Name of a Fish. See AMIA.

HAMMA, ἄμμα. A Knot made for fastening Bandages.

HAMMONITRUM. The same as AMMONITRUM; which see.

HAMULUS. A Hook in Surgery, of which there are many Sorts, contriv'd for various Purposes.

HANDAL. See ALHANDAL.

HAPHE, ἄψη. See HAPSIS.

HAPLOTOMIA, in Surgery, is a simple Section.

HAPSIS, ἄψις. The Sense of Feeling. But it signifies, also, Connection with respect to Bandages. And ἄψις γενῶν, in *Hippocrates*, imports Madness, a Delirium, or Loss of Reason.

HAPSUS. A round Wad of Tow, Lint, or Wool.

HARDESIA. See ARDESIA.

HARENCHUS, HARENGUS, or HERENGA. The Herring. See HALEC.

HARMA, or HARMATION, ἄρμα, or ἀρμάτιον. The Name of a Collyrium, describ'd by *Paulus Ægineta*, L. 7. C. 16. and by *Scribonius Largus*, N° 18.

HARMALA.

The Characters are;

The Leaves are alternate, the Flowers roseaceous, and pentapetalous: The Ovary in the Bottom of the Calyx becomes a roundish, tricapsular Fruit.

Boerhaave mentions but one Species of this Plant; which is, *Harmala*, Ger. 1073. Emac. 1255. Tourn. Inst. 257. Boerb. Ind. A. 261. *Ruta sylvestris*, *Harmel*, Offic. *Ruta sylvestris flore magno, albo*, C. B. P. 336. Raii Hist. 1. 878. *Ruta sylvestris Syriaca*, sive *Harmala*, Park. Theat. 133. *Ruta, quæ dici solet Harmala*. J. B. 3. 200. WILD RUE.

This Rue grows a Foot and an half, or two Feet high, having smooth Stalks, beset with longer and narrower Leaves than those of Rue, of but little Scent: The Flowers consist of five white Leaves, larger than those of Rue, whole and flat, with several yellow Stamina. The Seed-vessels are longer than those of common Rue, containing small brown Seed; the Root is somewhat hard and woody, of a yellow Colour. It grows wild in the Eastern Countries, as well as in *Spain*, and flowers in *July* and *August*. The Herb and Seed are us'd, tho' but rarely.

It is said to partake much of the Nature of Garden-rue, and to be particularly good for Diseases arising from Melancholy, and to provoke Urine.

The Arabian Writers say, that the Seeds are intoxicating, narcotic, and good in Melancholy. Dale.

HARMEL. The same as HARMELA.

HARMONIA, in Anatomy, is a Species of Articulation. See ARTICULATIO.

HARMOS, ἄρμος. The Flesh which grows betwixt the Teeth.

HARPAX. A Name for Amber. See AMBRA. It, also, signifies, a Mixture of Quick-lime and live Sulphur. *Holler, Inst. Chirurg.*

HARUNDO. See ARUNDO.

HASACIUM. Sal Ammoniacum. *Rulandus*.

HASTA REGIA. A Name for the *Asphodelus*; *verus*; *luteus*.

HASTELLÆ. Splints us'd in Fractures.

HAUSTUS. A Draught. In Pharmacy it is a liquid Form of a Medicine, containing as much as is to be drank at once.

HAYRI. The *Ebenus Æthiopica*. See EBENUS.

HEBE, ἥβη. The Hairs which grow upon the Pubes; the Part on which they grow; or the Age of Puberty when they appear in either Sex.

HEBENUM. The same as EBENUS; which see.

HEBISCOS. The same as *Ibiscus*. See ALTHÆA.

HECATOMBE, ἑκατόμβη. The Name of a Collyrium in *Paulus Ægineta*, L. 7. C. 16.

HECATONDRACHMA, ἑκατόνδραχμα. The Name of a Plaister in *Galen*, de Comp. Medic. per Gen. L. 2. C. 2.

HECTEUS, ἥκτε. An Attic Measure, equal to one sixth Part of a *Medimnus*, which contain'd seventy-two Sextaries, or Pints. *Poesius*.

HECTICA, ἡκτική, from ἥξις, Habit. An Epithet for a Species of Fever.

Hectic Fevers are not so much as mention'd by the antient Greek and Latin Physicians, as *Hippocrates*, *Aræteus*, and *Cornelius Celsus*: Nor was a slow Fever describ'd in any of the Writings of the Antients, till at last *Celsus* directed the Cure of it. What were afterwards call'd slow or hectic Fevers, were among the first Physicians styl'd tabid or long-contin'd Fevers,

or Marasmi. Thus *Hippocrates*, in the sixty-fourth Aphorism of his fifth Section, calls slow Fevers by the Epithet of long-continued; and observes, that those affected with them are not violently feverish; whilst he every-where describes an Hectic under the Name of *Phthisis*. At present, by slow and hectic Fevers are meant, those which are chronical, and continually by a preternatural, tho' mild and remitting Heat, consume the Juices, induce a Consumption, and impair the Strength.

These Fevers are various, according to the Violence of the Symptoms, and the Prospect of the Danger; for, strictly speaking, slow Fevers are such as are accompanied with mild Symptoms, a gentle Heat, profuse Sweats during Sleep, a natural Pulse after Sleep, and in the Forenoon, without any considerable Loss of Strength and Appetite, Dryness of the Body, livid Colour of the Urine, or great Danger: Whereas, in an hectic Fever, the Heat is continual, and the Pulse always hard, weak, and quick; tho' after Eating, and towards Evening, the Quickness and Hardness of the Pulse are increas'd, the Skin and Tongue are render'd dry, hard, and parch'd, the Cheeks become red, the whole Body is weak and flaccid, the Sleep is not refreshing, the Urine is red, has a Sediment at the Bottom, and on its Surface a pinguious Pellicle of a brownish Colour, and the whole Body is emaciated to such a degree, that the Bones protuberate thro' the Skin: Besides, slow and hectic Fevers differ with respect to their Cause, since in the former the Fault is rather in the Fluids, and the beginning bad Disposition of the Solids; whereas, in the latter, the Solids are rather in the Fault, and the Viscera already corrupted. Hence slow Fevers may be carry'd off, and their Causes remov'd, by proper Medicines; but Hectics are either with the greatest Difficulty, or not at all, to be cur'd; for hectic Fevers are rather of the symptomatic kind, and succeed violent Exulcerations, Vomicae, Abscesses, and Corruptions of the Viscera: Hence all those who labour under a Phthisis, an Abscess, a Vomica, or an Exulceration of the Lungs, Mesentery, Kidneys, or Uterus; those who have violent Suppurations in the internal Parts, or in the Muscles of the Abdomen; those who have a Cancer in their Genitals, Breasts, or Uterus; as, also, those who labour under a Cachexy or Dropsy arising from an Induration, Scirrhus, Corruption, or Putrefaction of the Liver, Spleen, Omentum, Pancreas, and Glands of the Mesentery, die of hectic Fevers.

The Cause of the continual Heat in this Fever is a certain putrid and corrupt Humour, which is utterly prejudicial to the due and natural Mixture of the Blood and Humours, which it disturbs, changes, and dissolves, by a preternatural and intestine Motion. This putrid Humour is offensive to the nervous Fluid, and the nervous Parts; and forces these sensible and moving Parts into a violent Contraction, in which the very Essence of the Fever consists. The greater Quantity, therefore, there is of these putrid and corrupted Humours, arising from an incurable Disorder of the Viscera, and the longer they continue in the Body, the Fever, and all its Symptoms, will be so much the more terrible.

Slow or long-continued Fevers, of a mild and gentle Kind, are highly frequent and incident to Persons at every Period of Life, of every Sex, Temperament, and Country. But the Origins and Causes of these Disorders are various: They, however, commonly arise from some preceding Disease, which too much weakens the Body, and impairs the Strength; for it is certain, from Experience, that those who by obstinate intermittent Fevers, or those of the continual Kind, as also by the Small-pox or Measles; large Discharges of Blood from the Uterus, Anus, or Nose; long-continued Fluxes, whether of the simple or dysenteric Kind; as also, too liberal Salivations, a long-continued Gonorrhoea, or Fluor Albus, Grief, Cares, Watchfulness, continual Application to Studies of any kind, Hunger, hard Labour, or an immoderate Use of Venery, have impair'd their Strength, readily fall into those slow and long-continued Fevers. The Reason of this is sufficiently obvious. Bodies of this kind are deprived of a due Quantity of laudable Blood and Juices, as, also, of a due Quantity of the nervous Fluid: For after such Diseases, the Appetite becomes keener; but the spirituous, salival, and bilious Juices, subservient to the Dissolution of the Aliments, recede from their genuine Nature, and are not so efficacious as they ought to be. The peristaltic Motion, also, of the Stomach and Intestines is highly languid. Hence the Solution, Concoction, and Digestion of Aliments, liberally taken, are not perfectly carried on, but the Chyle, as yet thick, crude, and not duly elaborated, is convey'd to the Mass of Blood, and, by its heterogeneous Nature, destroys the due Crasis of the Fluids, and disturbs the equable and natural Motion of the Solids.

Besides, it is found, from Experience, that these consumptive Fevers are particularly subsequent to a Defect, or a preposterous Suppression, of usual and critical Evacuations; for nothing is more frequent than for those, in whom the Evacuations, which terminate acute Diseases and Fevers, especially Sweats, and a free Perspiration, are obstructed, or not duly carried on; those in whom their usual Night-sweats are dried up; who have Fontanels, or old Ulcers, consolidated; who have Catarrhs, and other acrid Defluxions from the Uterus, or other Organs, or Diarrhoeas unseasonably stop, to be afterwards seiz'd with slow Fevers; for

thus the vitious, impure, and superfluous Humours, which ought to be discharg'd, remain in the Body, and so corrupt the laudable and nutritious Juices, that the whole Mass is render'd intemperate, and all the Motions and Functions of the Body vitiated.

That the Seat of slow and hectic Fevers is most generally in the Mesentery, is certain, both from Reason and Experience; for *Fernelius*, and, after him, *Sennertus*, long ago observ'd, that the Mesentery was, more frequently than any other Part of the Body, the Seat of a great Number of latent Disorders, slow and erratic Fevers, Diarrhoeas, Choleræ, Scurvies, melancholic Disorders, Cachexies, Dropsies, and intermittent Fevers of an obstinate and rebellious Kind. The Reason why the Mesentery has this strong Tendency to generate Diseases, is, that the slow and languid Motion of the Fluids through this Part easily lays a Foundation for Stagnations; for the Vena Portæ, destitute of a Pulsation, receives the Blood returning from the Mesentery, discharges the Office of an Artery, and carries it to the Liver: But, as this is slowly done, an Obstruction happens in the meseraic Vessels, in consequence of which Stagnations, Infarctions, and sometimes Extravasations, are produc'd. Then the hæmorrhoidal Vein, by reason of its perpendicular Direction, and its Distance from the Heart, conveys the Blood very slowly back to the Vena Portæ, and occasions very frequent Stagnations, and painful Distentions of the Vessels in the Mesocolon, and large Intestines, especially in the Intestinum Rectum. In the Mesentery itself, in consequence of a Defect of nervous and muscular Coats, the Progress of the Blood is not at all assisted, but the Vessels, cover'd with Fat, and running through the Membrana cellulosa, rather have their Tone destroy'd, are continually relax'd, and easily yield to the Blood accumulated in them. Whilst, also, the chylous Lymph is slowly carried through the innumerable lacteal Ducts, divided into minute and capillary Vessels about the Glands, and receiv'd by the minute Vessels of these Glands, it easily remains in their Cavities; nor, for this Reason, is it to be wonder'd at, if the Glands of the Mesentery are often obstructed, render'd tumid, and degenerate into a scirrhus State.

But though the slow Circulation of the Humours through the Mesentery is of some Use, as it contributes to the Excretion both of the redundant and peccant Juices; of the Blood, for Instance, through the internal hæmorrhoidal Veins, and of the scrous, mucid, and fermentable Sordes through the numberless Glands of the Intestines; yet it happens, for this very Reason, that almost all the Faults of the Humours, whether arising from Quantity, Quality, or Motion, have an unlucky Influence on the Mesentery. A Plethora, in particular, is prejudicial to no Part more than to the Mesentery; since, by a preternatural Distention and weakening the Tone and Elasticity of the Vessels, the Humours are too much accumulated; for the greater the Stagnation of the Blood in the Mesentery is, the more its Impurity is increas'd; and the greater the Impurity of the Blood and Lymph is, the more the Functions of the Body are weaken'd, and the Nutrition is diminish'd, the Strength impair'd, the intestine Motion of the Fluids increas'd, the Heart and Arteries stimulated to a brisker Motion; and the Fever, by this means, increas'd.

Hence the Reason is obvious, why, according to *Hippocrates*, in *Lib. 2. Prædict. Sect. 13.* a Defect or Suppression of the Menes are succeeded by dangerous and consumptive, that is, hectic Fevers, known by the Names of Chlorosis and Green-sickness; as, also, why in Men, according to the same Author, *Aph. 12. Sect. 6.* an Obstruction, or preposterous Stoppage, of the hæmorrhoidal Discharge, generates Consumptions, or hectic Fevers; and, farther, why, by stopping salutary Diarrhoeas, which frequently prevent or terminate acute Diseases, and appear at certain stated Times of the Year, consumptive and dangerous Fevers are brought on. Nor is the Reason less obvious, why nothing is more dangerous, or subject to produce chronical, slow, and hectic Fevers, than when, in Persons especially of plethoric, cacochymic, or hypochondriac Habits, where the Circulation of the Blood through the Mesentery and adjacent Viscera is already too slow, have an unseasonable Stop put to Fevers by Astringents, or even the celebrated Peruvian Bark; which Fevers, in these Disorders, are capable of consuming the superfluous Juices, removing Obstructions of the Viscera, and promoting a free Circulation of the Blood, by an Oppression of which, the Infarctions of the mesenteric Vessels, the Obstructions, the Stagnations and Impurity of the Humours, are increased, and, consequently, a future Foundation laid for chronical Fevers, and other Disorders.

Nor is the Mesentery only thus disposed to Stagnations and Obstructions, but also to Suppurations and Abscesses, which are generally accompanied with a febrile Intemperature. Many are of Opinion, that Inflammations, without which there can be neither Suppurations nor Abscesses, cannot happen in the Mesentery, because in it neither an acute Pain nor Heat, the perpetual Concomitants of an Inflammation, are observ'd. But the Essence of an Inflammation does not consist in Heat and Pain, but in a certain Stagnation of Blood in improper Vessels; and

and the Heat and Pain are rather the Product of this Stagnation, if it happens in a nervous Part of exquisite Sensation. Stagnations and Extravasations of the Humours, together with the Suppurations arising from them, may very readily happen in the Mesentery, in consequence of the large Afflux of Humours thereto; since the Blood is either sometimes impetuously forc'd through the minute Ramifications of the Arteries into the lateral Tubes, (among which are the adipose Vessels) or those lateral Vessels are ruptur'd by the Force of the Humours, and discharge their Contents. Besides, Pus is no-where more readily form'd than in Parts every-where cover'd with Fat; because the Fat itself is, by the intestine and putrid Motion of the extravasated Humours, easily converted to a sanious colliquated Matter.

Abscesses, therefore, in the Mesentery, happen more frequently than is commonly believed, and may be known from a continual hectic Fever, an oppressive and fix'd Pain of the Abdomen, and a Discharge of a sanious Matter by Stool, together with a Pain and Heat of the Intestines. I have remark'd many Causes concurring to a Production of Abscesses in the Mesentery. I have frequently observ'd, that in plethoric, plethoricocachymic, and hypochondriac Patients, from violent Anger immediately before or after Meals, especially if Refrigeration concurs, the Body has been affected with an universal Languor, which has been succeeded by fatal hectic Fevers: I have seen the same happen in those who attempt to procure Abortion, by drastic forcing Medicines: When Physicians have treated a Suppression of the Menfes with hot and strong Emmenagogues or Purgatives, as also when they have endeavoured, in Opposition to Nature, to promote the hæmorrhoidal Discharge in Men by Preparations of Aloes. I have farther known such Fevers produc'd by Abscesses, in Patients full of Blood and Juices, after violent and unusual Exercise of the Body, and exposing the Whole of it to the Cold, but especially the Feet, which have a considerable Sympathy with the Abdomen.

For by such a violent Motion, whether produced by Passions, Medicines, or Exercise, the Blood is forcibly propel'd into the minute Vessels of the Mesentery, stagnates there, and passes into small Tubes it ought not to enter, where it remains, and is corrupted. Hence arises the Suppuration, which, in consequence of the intestine Motion, spreads farther, corrodes and consumes the adjacent Parts, so that of a small Abscess a large one is form'd, and the Cavities of Apostems enlarg'd. Besides, the sanious and corrupted Matter, being absorb'd by the Veins, and mix'd with the Blood, is often convey'd to other Emunctories, such as the Glands of the *Trachea*, and the Kidneys. Hence large Apostems of the Mesentery are often accompanied with Discharges of purulent Urine, or a Spitting of purulent Matter, whilst, at the same time, both the Lungs and Kidneys are sound. Sometimes, also, the Pus, in consequence of its Weight, descends through the Pores of the Mesentery, enters the Cavities of the contiguous Viscera, and is discharg'd by Stool. Sometimes, also, a large Abscess arises, and after a preceding Horror, or even a Rigor, with a succeeding Heat, breaking its Covering, discharges its Contents. If this happens in a Place less fit for Excretion, violent Gripes, resembling a Colic, are produc'd; but if it happens in the Cavity of the Abdomen, the Matter discharg'd corrodes, and induces a Gangrene on the internal Parts it touches; but, if this should happen in the Cavity of the Intestines, a large Quantity of Pus is discharg'd by Stool. Instances of this Discharge of Pus are given by *Horslius, Lib. 14. Obs. 25. & 26. Bartholine, Cent. 2. Epist. 23. Cent. 6. Epist. Cent. 4. Hist. as also by Tulpius, Lib. 2. Obs. 36.*

But the Fevers, which either accompany or succeed large Abscesses of the Mesentery, as well as of the other Viscera, such as the Liver, Pancreas, Kidneys, Bladder, and Uterus, are not mild and gentle, but of the hectic Kind, violent, and, consuming the Strength and Juices of the Body, prove fatal. The Beginnings, different Stages, and Symptoms of these Fevers are justly and accurately describ'd by *Hippocrates*, in his *Treatise de internis affectionibus*, in the following Words: "A gentle Rigor begins to seize the Patient; the whole Breast is pain'd as far as the Back; sometimes, also, the Patient is afflicted with an acute Cough, and a Discharge of a large Quantity of a thin and saline Saliva. These Symptoms happen in the Beginning of the Disease; but, in the Progress of the Disorder, the whole Body, except the Legs, is extenuated; for these, and the Feet, become tumid, the Nails are incurvated, but the Arms become weak and slender. The Fauces are cover'd with a kind of Down, the Patient breathes as if he whistled through a Reed, and is through the Whole of the Disease afflicted with a violent Thirst, and great Weakness. When the Patient comes to be in this Condition, he generally dies in a Year's time: All possible Care and Pains are, however, to be taken, in order to restore and recover him."

There is another slow and latent Species of Fever highly familiar to Children. It is accompanied with a remarkable Swelling of the Abdomen, an Extenuation of the superior Parts, a dry Cough, Loss of Strength, Want of Appetite, and a wandering Heat, which is increas'd after eating, and towards the Evening; the Patient is sometimes costive, and sometimes preterna-

turally loose, discharging a large Quantity of white mucous Matter by Stool. This Species of Fever, sometimes, arises from a viscid and tenacious Chyle obstructing the villous Coat of the Intestines, and the minute Mouths of the Lacteals, by which an Inflation of the Intestines, and a chylous Diarrhœa, are brought on. These Fevers, also, sometimes draw their Origins from a too tough and viscid Lymph, which, obstructing the Glands of the Mesentery, is there accumulated, and surprisingly distends them. The principal Occasions of these Fevers are the Voracity of Children; Aliments which inspissate the Chyle; Want of thin Liquors for drinking; and exposing their Bodies to Cold. These Fevers, when they happen, continue for a long time, and are, like other Fevers, arising from Obstructions of the Glands, and an excessive Expansion of their nervous Substance, attended with much Danger, and prove fatal, unless remov'd by proper Medicines, and a due Regimen. And after the Death of Children, who have been cut off by this Species of Disorder, the Glands of their Mesentery are generally found preternaturally large, their Intestines tumid and inflated, and their Lungs corrupted.

That Species of hectic Fever, which is common and fatal to old Persons, was, by the *Greeks*, called *Marasmus*. In it the Body is slowly wasted, the Appetite is lost, the Strength gradually consum'd, the Bones deprived of their Flesh to such a Degree, that they seem only to form a Skeleton, cover'd with a Skin; the Mouth is dry, the Saliva glutinous, the Skin cold, stiff, and dry; the internal Parts are hot, the Pulse hard and frequent, the Sleep short and unrefreshing, Respiration difficult, the Voice hoarse, the Tongue dry, and sometimes cover'd with rough and saline Phlegm. All these Symptoms gradually increase, till at last, in about half a Year's time, they put an End to the Patient's Lives. This Species of Hectic seems to be produc'd in the following manner: Old Persons, in consequence of their leading a Life free from Exercise, having all their Excretions, especially that from the subcutaneous Emunctories, languid, their Bellies costive, and through Fear, or for some other Reasons, frequently neglecting their usual Evacuations of Blood, by these means acquire a large Quantity of Blood, and impure Humours: Hence the Circulation of the Juices through the Mesentery, the Omentum, the Liver, Spleen, and Intestines, is slowly carried on, a Circumstance succeeded by Indurations and Corruptions, which lay a Foundation for chronical Fevers of the worst Kind.

There is still another Species of slow Fever, little adverted to by Authors, and which I call the Stomachic, or Intestinal Fever. This Disorder arises from an Erosion of the Coats of the Stomach and Intestines; induced either by an acrid, bilious, and pungent Humour, generated in the Body itself, or by taking acrid Substances, possess'd of a corrosive Quality; for 'tis certain, from Experience, that a Cholera, violent Anger, and Dysenteries, have been succeeded by chronical and fatal Fevers. Every one knows, that Poison, taken internally, corrodes the Stomach and Intestines. *Bartholine*, in *Cent. 6. Hist. 21.* gives us a Case where the Stomach was exulcerated, and a violent Pain produced after eating, by means of a strong Purgative. The same Effect is produced by Emetics, imprudently exhibited; as also by the purging bitter Salts, either when exhibited alone, in large Doses, to Persons of delicate Sensation, or, as some rashly advise, mix'd with mineral Waters. Not only the Cause and Seat of these Fevers are, with Difficulty, discover'd, but, also, the Cure is hard to be obtain'd; for, as the Coats of the Intestines are, in some measure, injur'd and corroded, every thing taken, especially if in too large a Quantity, or possess'd of a saline or acrid Quality, produces Spasms, Erućtations, and Gripes. The Patient is sometimes preternaturally costive, at other times his Body is too soluble. His Body is consum'd in the mean time: Sometimes a Horror and Rigor, sometimes a violent Heat, sometimes a cold, and sometimes a warm Sweat, attended with a quick Pulse, seize the Patient; and these Symptoms return periodically, and are increas'd at stated Hours. If these Fevers are not seasonably remov'd by proper Remedies, they prove chronical and mortal.

These slow and consumptive Fevers are among the Number of chronical Diseases, and terminate sooner or later, according to the Constitution of the Patient. A slow Fever admits of a Cure, if taken in time; but an Hectic is rarely cur'd, and, when of the confirm'd Kind, never. The Signs of Death in an Hectic are, a quick and weak Pulse, a great Loss both of the Appetite and Strength; so that the Patient can neither move his Body, nor remain in an erect Posture, an Hippocratic Countenance, a small Discharge of Urine, which is red, or oleaginous, and made without a hissing Noise, a falling off of the Hair, a Flux, profuse Sweats, and Swellings of the Feet; for these are Proofs partly of the Consumption, and partly of the colliquative Dissolution of the Juices. When Persons who have died of this Species of Fever, are dissected, an insuperable Defect is found in their Viscera; for sometimes there are Abscesses, with large Cavities, found in the Bowels, the Lungs, the Mesentery, the Liver, or Pancreas. Sometimes, also, Abscesses, or large scirrhous Tumors, or those of the steatomatous Kind, are found in the Uterus, the Stomach, the Kidneys, and Membranes of the

the Peritonæum; sometimes Tumors are found in the Glands of the Mesentery, or Tubercles and Impostumations in the Lungs, scirrhus Tumors of the Liver, Spleen, or Pancreas, a Sphacelus of the Omentum and Intestines, and Extravasations of putrid Humours in the internal Parts.

THE CURE.

Since the Seats and Causes of consumptive Fevers are very various, these are first to be investigated, and the Methods of Cure adapted to them: When, therefore, in consequence of a bad Digestion, and the crude and viscid Juices of the *primæ Viæ* form'd by that means, such a Fever arises after some other Disease, and discovers itself by the Languor of the Patient, his internal Heat, and his continual Propensity to sweat, especially in the Palms of the Hands, and Soles of the Feet; then the principal Intention of Cure is, to free the *primæ Viæ* from these Sordes which excite the Fever: This End, according to the Circumstances of the Patient, may be obtain'd by a gentle Emetic; such as the Root of Ipacacuanha, exhibited either in Powder, or by way of Infusion: And *Lindanus* informs us, that, in four Days, he cured an Hectic by one Vomit, and the subsequent Use of *Elixir Proprietatis*: But, if it should be thought more expedient to eliminate the peccant Matter by Stool, and, at the same time, to strengthen the Digestion; these Intentions will be best answer'd by the neutral or digestive Salts, such as the *Terra foliata Tartari*, antimoniated Nitre, *Sal Polychrestum*, vitriolated Tartar, a Solution of Crabs-eyes, *Sedlitz Salt*, either alone, or mix'd with half the Quantity of Powder of the best Rhubarb, exhibited in small Doses, but frequently, and with a proper Vehicle. The *Pilula balsamica* of *Becher* are possess'd of the same gentle laxative Quality, and may, therefore, be frequently exhibited in small Doses. When, by this means, the alimentary Duct is cleansed, Analeptics and Stomachics are to be used; as the best and most efficacious of which, we recommend the Essences of Calcarilla and red Gentian, as, also, the stomachic Elixir, with Spirit of Salt, or the Spiritus Nitri dulcis, to be taken every Day before Eating; not neglecting, at the same time, due Exercise, and the Use of wholesome Liquors, which are of great Importance in the Cure of Fevers of this kind.

This same Method of Cure is highly proper, in the Beginning of those Fevers which succeed unseasonably stopt Intermittents, or Relapses into them preposterously check'd: If these are succeeded by a slow Fever, it is most expedient to excite the former Fever, especially, if there is a Suspicion of Infarctions of the Viscera and Mesentery, as in cachectic and hypochondriac Patients. This was the Method used by *Celsus*, who, in the ninth Chapter of his third Book, delivers his Sentiments, in the following Words: "In this Case, the principal Care of the Physician ought to be, to change the Disease; since, in all Probability, this Expedient will contribute to render the Cure more easy. The Patient's Body is, therefore, to be frequently immerged in cold Water, to which a due Quantity of Oil has been added, since, by this means, a Horror is sometimes excited, and the Beginning of a new Motion produced: But, if the Patient has continued long in a cold, torpid, and restless State, it is expedient, even during the Fever, to exhibit three or four Cyathi of Mulsum, or diluted Wine, with the Aliments; for, by this means, the Fever is often heighten'd, and a greater Heat produced; by which the former Symptoms are removed, the Hopes of Safety obtain'd, and the Cure promoted. But it is the Duty of every cautious and skilful Physician, sometimes to renew and increase the Disease, because, by that means, tho' the present Disease is not cured, yet a future, and a more formidable one may be prevented." For, as, in intermittent Fevers, a brisk Circulation of Blood is often the best means of removing the Cause of the Disorder, so it, also, removes the Cause of a slow Fever, which is most frequently deeply seated in the Interstices of the solid Parts, and, especially, in the meseraic Glands and Vessels: Hence, if intermittent Fevers, especially of the quotidian Kind, are succeeded by slow Fevers, the Intermittent being recalled, which frequently happens, by the free Admission of a cold Northerly Wind, the returning Fever renders the Heat more intense, and, by the Assistance of this, exhibiting, at the same time, proper inciding and correcting Remedies, the slow Fever is successfully removed in due time.

When, in plethorico-cachochymic, cachectic, and scorbutic Patients, these slow Fevers arise from an Obstruction of the menstrual or hemorrhoidal Discharge; from too great Voracity, a bad Diet, the Abuse of spirituous Liquors, or exposing the Body to Cold; another Method of Cure is to be taken, and such Medicines are to be used, as remove the Obstructions of the sanguineous Viscera, the Liver, Spleen, and Mesentery, the Vessels, and Glands, and procure a free Circulation of the Blood and Humours thro' the Vessels of the Abdomen, and, especially, of the Mesentery. For this Purpose, nothing is more effectual, than the Use of mineral Waters, both of the cold and hot Kind. I have found, from long Experience, that nothing is more efficacious, in the Cure of these slow Disorders, than medicinal

Springs; and *Thonerus*, in his Observations, confirms this Doctrine, by the Success they had on himself: Of the hot Kind, the most salutary are, those of *Embsen* and *Wishaden*; and, of the cold Kind, the *Selteran*, and those of *Schwalbach*. But these must be used in their proper Orders, at seasonable Times, and in due Quantities, exhibiting, at the same time, proper Medicines, to assist Digestion, restore a mild and balsamic Quality to the peccant Juices, and promote the Evacuation of the Sordes from the Body. But, where these Waters cannot be had, other Medicines are to be used, as Succedaneums to them. In their stead, I have often used, with Success, a Decoction of thin Veal-broth, with the Roots of Succory, Fennel, Asparagus, Grass, Dandelion, and Vipers-grass: Of this, I order the Patient to drink a Pint every Day, for some Weeks; taking before it some chalybeated Medicine, such as the *Tinctura Martialis*, with the Juice of Apples, Quinces, or Oranges; as, also, the *Tinctura Martis* of *Zwelfer*, extracted, with Spirit of Wine, from Vitriol of Mars, and the Terra foliata Tartari: The Tincture, also, of chalybeated Flowers of Sal Ammoniac, prepared with Blood-stone, and extracted with pure Spirit of Nitre, which is still better, if impregnated with Orange-peel, is, also, of singular Efficacy, in Cases of this Nature: But a proper Regimen, a wholesome Diet, and due Exercise, are necessary, both during the Use of these Preparations, and the mineral Waters.

In those slow consumptive Fevers arising from a Corrosion of the Stomach and Intestines, all acrid, saline, acid and stimulating Substances are as bad as Poisons. *Rhenish* Wine, also, in consequence of its Tartness, sweet and fermentable Substances, and all Aliments of hard Digestion, increase them. The Cure of this Species of Fever is highly difficult; nor does it call for any other Medicines, but those of the demulcent and corroborating Kind. I have frequently known good Effects produc'd by a Decoction of Milk, with Sassafras and Peruvian Bark, or with Chamomile-flowers, and the Tops of Yarrow. A Pint of this Decoction may be exhibited daily. The Roots of Marshmallows, Broth prepar'd with Milk and Rice, as also Gum Tragacanth dissolv'd in Mint-water, are highly beneficial. Good Effects are, also, produc'd by Clysters of Milk prepar'd with the Yolk of an Egg, and Honey; or other Emollients, with *Fernelius's* Syrup of Marshmallows. When the Spasms of the Abdomen are very violent, they are excellently mitigated, says *Hoffman*, by my antispasmodic Pills, prepar'd of the Extracts of Chamomile, Yarrow, Saffron, and Castor, together with the Oil of Nutmegs.

In the slow and consumptive Fever, which arises in those who have lost their Strength, and most laudable Juices, by long-continued Passions, Grief, Care, hard Labour, Watching, Hunger, frequent and unseasonable Venery, excessive Salivation, the Fluor Albus, a long-continued Gonorrhœa, violent Fluxes, giving too much Suck, or Ulcers which discharge a large Quantity of purulent Matter, all Substances which throw the Blood into too great Commotions, Purgatives, violent Exercise, and too heavy or nutritive Aliments, are highly improper, since they rather require Rest of Body and Mind, and such Medicines and Aliments as are temperate, correct Acrimony, allay Heat, nourish gently, and restore the impair'd Strength. Among the Medicines of this kind, are Emulsions of sweet Almonds, Pine-nuts, and the Four greater cold Seeds, prepar'd with a Decoction of Hartshorn, or Rose and Cinnamon-water, impregnated with Quinces. Asses Milk, or that of Women, or Goats Milk, or Cows Milk boil'd, together with the Juice of River-crabs, the Broth of a young Fowl mixt with Ptisan, Ptisan boil'd with River-crabs, or Wood-tortoises bruise'd, according to *Amatus Lusitanus*, in *Cent. 2. Curat. 53.* who cur'd an hectic Patient by the Use of Asses Milk, and young Fowls fatten'd with Wood-tortoises. Some recommend Oysters, if the Stomach can bear them: And *Lindanus* confirms this, by an Instance of a Girl of twenty Years of Age, who, from a Fault of her Lungs, becoming hectic, by a continual and long-continued Use of Oysters was so perfectly recover'd, that she liv'd long, and bore eight Children. A small Quantity of Wine ought only to be drank, and that of the Neckarine, or Moselle kind, mixt with Water. Moderate Exercise, also, by Gestation, or slow Walking, is only to be us'd.

When Fevers of this kind arise from an Abuse of intoxicating Liquors, such as Wine, Brandy, Aqua-vitæ, burnt Wine, and strong Ales, together with a decaying State of Body, then all heating, spirituous, and analeptic Substances are to be abstain'd from, as also, Stomachics, such Things as resolve Phlegm, and the drinking of Malt Liquors; but let the Patient use, for Drink, a Decoction of Oats, prepar'd, in *Lower's* manner, of Oats, Succory-root, the Flowers of wild Poppy, and a little antimoniated Nitre. See CURA AVENACEA. Whey, with a little Nitre and Butter-milk, are of singular Service, and have much ascrib'd to them by *Pieus, de Febr. Part 2.* and *Barbatus, de Sanguine & Sero.* Patients, of this kind, also, receive considerable Advantage from Ptisana, prepar'd with Barley and Succory. And *Borelli*, in *Cent. 4. Observat. 89.* affirms, that many hectic Patients have been restor'd by the Use of Preparations of Barley alone. Thinner Emulsions may also be of considerable Service, as also gelatinous Substances, with an Addition of Citron-juice.

If, as it frequently happens, these Fevers arise in Women from a sudden Suppression of the Menfes, by drinking cold Liquors, Refrigeration, or Frights, a Vein in the Anles is to be quickly open'd; some resolvent Decoction, of Succory-root, the Herb Sow-thistle, the Flowers of the lesser Daisy, and Elder, is to be exhibited; and the Use of the more drastic Emmenagogues is to be abstain'd from. But if a slow or hectic Fever, arising from this Cause, should have already afflicted the Body for a long time, with a Consumption and Heat, Venesection is so far from being adviseable, that it is justly to be condemn'd, because it impairs the Strength too much. When, after Child-birth, the Menfes are totally suppress'd, and a genuine Hectic form'd, together with an Atrophy, Cough, Diarrhoea, Pain of the Breast, universal Languor, and a slow consuming Heat, we are not to use such Medicines as promote the Menfes, since the Symptoms indicate the Use of such as are directly the contrary. The same holds true, with respect to that consumptive Fever arising from a Retention, or Obstruction, of the hæmorrhoidal Discharge; for, in this Case, if the Strength and Juices are consum'd, it is absolutely imprudent to attempt to recall the Discharge by Evacuants, forcing Preparations of Aloes, or Venesection in the Foot; for by these means I have observ'd that the Discharge of a sufficiently fluid and red Blood has been procur'd; but, soon after the Fever was increas'd, the Strength more impair'd, the Sleep disturb'd, and the Disorder made to terminate sooner in Death, than it would otherwise have done.

That Species of Hectic, which is incident to old Persons, and known by the Name of *Marasmus*, is more easily prevented, than cured. But since it is obvious, from accurate Observation, that the consumptive Fevers of old Persons may arise from two Causes; that is, from a Plethora, or rather a large Quantity of thick Blood stuffing and obstructing the abdominal Viscera and Mesentery; or from a Cacochymy, when there is a Redundance of impure and saline Serum, in consequence of its too languid Secretion, especially thro' the Skin; these two Causes must have preservative Measures adapted to their respective Natures. Thus, if an old Person, addicted to a sedentary and unactive Life, who still enjoys a good Appetite, should, by omitting his usual Evacuations of Blood, or by the Stoppage of spontaneous Excretions, incur the Hazard of falling into a slow continual consumptive Fever; the Physician's first Business is, to diminish the Quantity of the Blood, by seasonable Venesection, then to order the Patient to drink large Quantities of diluting wholesome Liquors, to abstain from all too nutritive Aliments, and to use proper Exercise. But if the Juices of old Persons abound with impure Particles, and such as are opposite to their mild and natural Qualities, nothing else is to be done, than by the mildest Laxatives, such as Preparations of Rhubarb, Manna, and Raisins, to evacuate the Sordes which foment the Peccancy of the Humours, and again to generate temperate and laudable Juices, by means of Jellies, and Preparations of Milk; and especially by Asses-milk, which is highly salutary to old Persons, on account of its demulcent, aperient, and gently evacuating Quality.

That slow Fever, which is incident and fatal to Infants and Children, is principally subsequent to the Small-pox and Measles. In this Species of Fever the Abdomen becomes tumid, and the superior Parts are wasted. Upon dissecting those who have dy'd of it, the Mesentery is generally full of hard, scirrhus, and steatomatous Tumors, especially about the Veins which run to the Vena Portæ. The Lungs, are, also, found full of Tubercles and Impostumations. In this Disorder, Prevention, if possible, is more eligible than any Attempts for a Cure, which are generally unsuccessful, and in vain. But that Consumption which arises in Children from too great Voracity, and exposing their Bodies to Cold, admits of a Cure. And, in this Case, I know of no more effectual Means of Relief, than the external Use of temperate Baths of sweet Water, continued for some time. And, internally, in order to remove the Obstructions of the Glands, the meseraic and lacteal Veins, we recommend small, but frequent Doses of the saline, aperitive Liquor prepar'd of Salt of Tartar, Nitre, and the *Arcanum Duplicatum*, mix'd in equal Quantities, adding half the Quantity of Sal Ammoniac to be drank, dissolv'd in a due Quantity of Ale.

But, in every Hectic, the principal Intention of Cure is, to restore that laudable Moisture which the continual Heat carries off not only from the Blood, but also from the solid Tubes, and, together with it, at last, the Fat and Flesh. This End is most effectually answer'd by Aliments of a medicinal Quality, the most efficacious of which is Milk: For, according to *Hippocrates*, in the sixty-fourth Aphorism of his fifth Section, "Milk is highly proper for consumptive Persons, when not very feverish: It is also good for Persons labouring under long and lingering Agues; as also for those who are much wasted, without any apparent Reason." But the Milk which most speedily restores the consum'd Moisture, and extinguishes the Heat, is Womens Milk suck'd immediately from the Breast, and not vitiated by the Air; by which *Forestus*, in the tenth Observation of his fifth Book, informs us, he knew a Hectic perfectly cur'd. Asses-milk is less nourishing, but it is more cooling, allays Heat, absterges,

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and is aperient. *Ballonius*, in *Lib. I.* in his Advice to an illustrious Prince, who was much dispos'd to a Consumption, highly extols the Virtues of this Milk. *Cardan* tells us, "That it is not to be doubred, but the Safety of consumptive Persons depends on the Use of Asses-milk." And *Aretæus*, in his second Book *de Cur. Acut.* directs the Cure of a Consumption, in the following Words: "When any one falls into a Consumption, it is not expedient to trifle away Time, in recommending Rest, and a slender Diet; but the Patient must use Exercise, Frictions, Gestations, and Baths, in order to preserve his Life, and restore his Vigour. Milk, especially that of a Woman lately deliver'd, is also to be used; for such Patients require Aliments of a like Nature with new-born Children: If a sufficient Quantity of Womens Milk cannot be had, that of a new-milch'd Ass, which is thin and fluid, is to be substituted." The Milk of Goats or Cows is more nutritive, but is heavier, and contains more of a cheesy Substance; for which Reason it is to be corrected, lest it should prove injurious to the Stomach.

I cannot forbear approving, as the best of all others, that Method of using Milk, recommended by *Hippocrates*, in his Treatise *de internis Affectionibus*, in the following Words: "Asses-milk boil'd, in order to purify it, is to be exhibited; the Patient, is, also, to drink unboil'd Cows-milk, mixed with a third Part of Hydromel, and a due Quantity of Origanum, for forty-five Days." This sagacious Author every-where judiciously recommends boiled Asses-milk, as a gentle Purgative; because it contains a sweet kind of Salt, resembling Sugar, which is gently abstergent and laxative, and, which is more concentrated by the Dissipation of the Moisture by Boiling. *Hippocrates*, no doubt, recommended the Addition of the Origanum, with a View to strengthen the Stomach, and corroborate the weaken'd nervous System. If Asses-milk cannot be had, I generally order, for two or three Mornings, a Pint of Milk from Cows fed with proper Herbs; with an Ounce of Manna, or Sugar of Roses, or Conserve of Roses, dissolved in it. After this, I order a Pint of the Milk to be drank every Morning, only with the Addition of an Ounce of Sugar, and half a Dram of Nitre, according to the Circumstances of the Patient; especially, when there is a Suspicion of some Fault in the Mesentery, or of an internal Exulceration of the Viscera, I order, to mix with the Milk, an half, or a third Part, either of pure Water, or, which is better, of *Selteran* mineral Water: When the *Selteran* Water cannot be had, I order an Infusion to be prepar'd of common Water, with Paul's-betony, Sow-thistle, Lungwort, Liverwort, Tree Lungwort, Colts-foot, Ground-ivy, Spleenwort, Maidenhair, Flowers of St. John's-wort, and Roses: This Infusion is to be drank warm, with an equal Quantity of Goats or Cows-milk, with an Addition of Sugar; and, in order to render it more abstergent, of a few Drops of Oil of Tartar per Deliquium. This Method is to be persisted in for six Weeks at least, abstaining, in the mean time, from every thing which may either coagulate the Milk, or overload and weaken the Stomach. Wine is, also, to be carefully abstain'd from; only, in order to cherish the Stomach, a small Quantity of *Hungarian* Wine, or of Hydromel made of *Prussian* Honey, may be allow'd.

But, before we prescribe the Use of Milk, we are to examine, whether the Stomach is capable of bearing it, because it will not agree with some Persons: I have also observ'd, that those who are accusom'd to Wine, or drink large Quantities of Ale, cannot commodiously bear Milk; nor is it proper for hypochondriacal Patients, and such as labour under a violent Fever, accompanied with a Head-ach. If the Stomach is languid, and the meseraic Vessels obstructed, Milk soon corrupts, becomes vapid, and produces terrible Disorders. We are, therefore, to take care, that it may not remain in the Stomach; to prevent which, *Galen*, in his tenth Book, *De Medicam. Simpl.* orders it to be boil'd, and ignited Steel, or red-hot Flints, to be immersed in it. The safest is Asses-milk, abounding with Serum, and containing little of a cheesy Substance: This *Galen* prefers to all other kinds of Milk, in a Hectic. And *Hoffman* has wrote a Dissertation, *De Mirabili Lactis Asinini Usu in Medendo*. If a sufficient Quantity of Asses-milk cannot be had, sweet Whey, properly prepar'd, may be used in its stead. Some distil Whey in *Balneo Marie*, and highly recommend the Water drawn off, both for Drinking, and, as an excellent Vehicle for other Medicines.

Besides, in this Species of Fevers, we are to take all possible Care, both to keep the Crasis and Mixture of the Blood free from the intimate Dissolution and Colliquation of its Elements, threaten'd by the continual Heat, and to preserve a due Equilibrium, or Balance, between the Heat and the Moisture. This Intention is most effectually answer'd by the Use of the gentle Astringents and Corroboratives every-where recommended by Physicians; such as the Tinctures, or, rather, the Solutions, of Corals, or Mother of Pearl, with some subtle Acid, of a Quality friendly to Nature; such as the Juices of Citrons, Barberies, Seville or China Oranges; the Tincture of Roses, prepar'd with Rose-water; and the Phlegm of Vitriol is, also, highly beneficial: The Species of *Hyacintho*, with a few Grains of Coral and Nitre, are gently astringent, corroborative, and effectual, for checking colliquative Sweats. A temperate balsamic Elixir, prepar'd

par'd from temperate resinous Gums and Extracts, without Spirits of Wine, is, also, of singular Efficacy: Nor are we to omit the Bark of Cascarilla, and the *Peruvian* Bark, made into the Form of an Electuary, with the Syrup of Citron-juice, or that of the *Indian* Nut, and the Addition of a due Quantity of Nitre; Red Oker, made up with Conserve or Julap of Roses, is, also, of singular Service. All these Medicines, provided the Impurities of the Fluids, and Faults of the Vessels, are previously remov'd, are of singular Efficacy, and their Use highly to be approv'd of.

But the Preparations of Lead, recommended by the Chymists, for allaying hectic Heats, and checking Sweats, by no means deserve the Encomiums bestow'd on them; since, in consequence of their astringent metalline Quality, they prove unfriendly to the Nerves, destroy the Tone of the Stomach and Intestines, and, by these means, do more Injury than Good. Hence we are, in these Cases, to reject the Sugar of Lead, and the celebrated Preparation of it, commonly called the *Tinctura Antiphthifica Germanorum*. But the *Antibethicum Poterii*, if prepar'd of pure Tin, Nitre, and Antimony, and exhibited with Emulsions, is so far from being so prejudicial as some think it, that it proves highly beneficial, in consequence of its mild, corroborating, and diaphoretic Quality. Nor is Tin offensive to the Nerves, by reason of the mild Sulphur it contains; nor astringent, which Lead is. The judicious *Muraltus*, in *M. N. C. Dec. 2. An. 1. Obs. 109.* gives us his Opinion of this Medicine, in the following Words: "The *Diaphoreticum Joviale*, or the *Antibethicum Poterii*, is of singular Service in correcting the Acrimony of the Humours, which irritates the Nerves: This Medicine, also, corroborates the Uterus, and often renders those who are emaciated and weak, robust, and full of Flesh."

In slow and hectic Fevers, Baths are frequently recommended, especially by the Antients. *Sennertus*, from *Galen*, describes the Method of using them, at large: But, omitting all other Authorities, we shall only quote a Passage of *Prosper Alpinus*, from his sixth Book, *De Med. Method.* relating to the various Uses of Baths, and which runs thus: "Among external Remedies, Baths, either of sweet Water, or impregnated with Marsh-mallows, Mallows, Violets, or other Substances of a like Nature, are highly proper. In *Egypt* they prepare tepid Baths for the Grantees, of the Milk of Asses, Camels, or Mares. Epithems and Unctions are, also, recommended. Among Baths, both those of the tepid and cold Kind are beneficial; the former moisten the solid Parts, digest peccant and recrementitious Humours, promote a due Perspiration, and even, by their gentle Warmth, allay the Heat of the Body; whereas the latter, that is, cold Baths, refrigerate, condense the Skin, and, by augmenting the Heat, increase the Strength. But it is not safe for highly extenuated and languid Patients to use very cold Baths, since, instead of augmenting the Heat, they will extinguish it; because it is already too weak and languid: But, they are highly beneficial to robust Patients, who may use them twice a Day, in the Morning and Evening before Meals: Weak Persons ought only to use them once a Day. Some are of Opinion, that moderately cold Baths are both more safe and useful, than such as are excessively so: For this Reason, they first put the Patient into a moderately warm Bath, and afterwards into one moderately cold, so that it only appears to be rather tepid. The *Egyptians* and *Arabians* use Baths, of the Water of the Nile, and of the Milk of Camels, Asses, or Goats; they, also, apply to the Thorax, Liver, Stomach, and Kidneys, Epithems prepar'd of Milk, warm Oil of Roses or Violets, the Juices of the Rush, Lettuce, Endive, Purslain, Polygonum, Water-lentil, white Water lily, and other Substances of a like Nature, adding a little Milk and Saffron, to render them of a more penetrating Quality." But, with respect to Baths in general, it is to be observ'd, that they are advantageously used in the Beginning of the Disease, and when it arises from a Loss of Strength, as, also, in the slow Fevers of Infants, because they are of an emollient and demulcent Nature, and, at once, relax and moisten the rigid Fibres: But in the Progress of the Disease, and when internal Abscesses and Exulcerations are already form'd, they are of no Service.

One of the most considerable and efficacious Means of removing these chronical and troublesome Fevers is Exercise. Among the Antients, *Hippocrates* and *Aretæus*, for the Cure of a Consumption, highly extol'd various Kinds of Exercise, such as Walking, Riding, Gestation, Travelling, and Sailing. *Hippocrates*, in the thirty-fourth Book of his *Treatise de internis Affectionibus*, orders, that "If the Patient is strong, he should for thirty Days be employ'd in cutting Wood, use sufficient Exercise, or walk by Day, setting apart the Night for Repose and Rest." But the most salutary and commodious Species of Exercise is Riding on Horseback, or in a Chariot; during which, the Circulation and Progress of the Blood thro' the Mesentery is excellently assisted by the continual Succussions of the Body. *Sydenham* and *Morton* are very diffuse in their Praises of Riding, and its Advantages; and the former of these Authors does not hesitate to affirm, that, in hectic Disorders, Riding is a kind of Specific, as valuable as Mercury in the *Lues Venerea*,

or the *Peruvian* Bark in intermittent Fevers: And *Morton*, in his *Exercitat. de Phibis.* uses the following Words: "There is no more efficacious Remedy than daily Riding, protracted to moderate Sweating, in slow and hectic Fevers, especially when arising from any Fault of the Stomach, or, perhaps, from the preposterous Treatment of intermittent Fevers; the excessive or unseasonable Use of fixing, astringent, and precipitating Substances; or from Drinking cold Liquors, when the Body is over-heated, the preternatural Heat excited by which preys upon the laudable Juices of the Body; or from the acid, tough, and viscid Saburra of the Stomach and Intestines, preternaturally obstructing the Passages; for, by the equable Succussion of Riding, the viscid Lentor, or vapid and lifeless Chyle, with which the Body is stuffed, is resolved and eliminated from the Body, that the Appetite may be restored, and a new and more laudable Chyle elaborated. But it is proper to observe, that brisk and frequent Riding is highly beneficial in slow Fevers; whereas moderate Riding is best suited to those of the hectic Kind, properly so called."

In these slow and consumptive Fevers, the Measures of Relief are to be taken with all Expedition; for, when the Opportunity is neglected, when either Physician or Patient commits an Error, or when the Disorder is long protracted, the Cure is in vain attempted, and the Distemper generally degenerates into a fatal Hectic. Those who already labour under Fevers of this kind, find themselves always worst in the Autumn; because, at this Season, Nature is most faint and languid in performing the Offices of Secretion and Excretion. Besides, since there are generally, about the Equinoxes, sudden and unseasonable Changes of the Weather and Atmosphere, Patients of this kind are not only for the most part worst; but, also, die of incurable Flectics. It is, therefore, necessary, that about these Seasons, they observe a strict and proper Regimen, preserve an easy State of Mind, and apply to some judicious Physician for Advice. *Frederic Hoffman*.

HEDERA.

The Characters are;

The parasitic Tendril sends forth Fibres, or Roots, into any thing they come near, capable of sustaining them: The Leaves are angular; the Flower rosaceous, and, generally, hexapetalous; the Ovary, at the Bottom of the Flower, becomes a round Berry, pregnant with Seeds, which are gibbous on one Side, and flat on the other.

Boerhaave mentions four Species of this Plant; which are,

1. Hedera; arborea. *Offic. C. B. P.* 305. *Tourn. Inst.* 613. *Boerb. Ind. A.* 2. 231. *Hedera corymbosa*. *Ger.* 708. *Emac.* 858. *Hedera Arborea sive scandens & corymbosa nigra*. *Park. Theat.* 678. *Hedera communis major*. *I. B.* 2. 111. *Raii Hist.* 2. 1505. *Synop.* 3. 459. *IVY*.

The Leaves of Ivy, while they run upon the Ground, are more angular and corner'd; but, when the Stalks rise up, and are fasten'd to a Wall or Tree, they become rounder, ending in one Point: Whence most of the old Botanic Writers have made two Species; that with the corner'd Leaves, because it bore no Fruit while it lay on the Ground, they called *Helix*, or barren Ivy; and the other *Corymbosa*: The Leaves of both are of a firm Texture, and a dark-green Colour; those of the first frequently full of small white Veins: The Branches insinuate themselves, by short Cirrhi, into a Wall, or the Body of a Tree, that it climbs on: The Flowers grow in Corymbi or Umbels, consisting of small six-leaved yellowish Flowers, follow'd by round umbilicated Berries, black, when ripe; including several angular Seeds. Ivy grows every-where in Hedges, and flowers late in the Year; the Berries being not ripe till *January*, or later.

The Leaves are seldom or never used inwardly; but, outwardly, they are applied to Issues, to keep them cool, and free from Inflammations; as, also, to Scabs, and Sores, and scald Heads. *Mr. Boyle*, in his *Usefulness of experimental Philosophy*, commends a large Dose of the full-ripe Berries, as a Remedy against the Plague; tho' *Schroder* says, they purge upwards and downwards. The Gum of Ivy is somewhat caustic, and commended to take away Spots and Freckles out of the Face. *Miller's Bot. Off.*

The Gum is a resinous, dry, hard, and compact Substance; of a bay Colour, inclining to that of Gold, shining like Glass, but not pellucid; of a subacid and subastringent Taste, and fragrant Smell.

Geoffroy says, it is neither caustic nor depilatory, as the Antients imagin'd; but a powerful Resolvent and Discutient, in which Intentions it is an Ingredient in several Plaisters.

Dale says, that the Leaves are heating, drying, and subastringent.

2. Hedera; major; sterilis. *C. B. P.* 305.
3. Hedera; communis; minor; foliis ex albo & viridi variis. *Hedera, Arborea, C. B. P.*
4. Hedera; monophyllos; Convolvuli foliis; Virginiana. *Plukn. Phyt.* 36. 2. *Boerb. Ind. alt. Plant. Vol. 2. p.* 231.

HEDERA TERRESTRIS. See CHAMÆCLEMA.

HEDERA TRIFOLIA. See TOXICODENDRON.

HEDERA-

H E L

hederaceus, or **hederarius**. An Epithet for the *Vasa Præparantia*, or *Plexus Pampiniformis*; consisting of the Spermatic Vein and Artery, in their Progress to the Testicles.

hederula. A Name for the *Lenticula*; *Aquatica*; *trifolca*.

hedra, ἡδρα. The *Anus*, or, sometimes, the Excrement thence excreted. It, also, signifies the Basis or Stool of an Abscess, that is, the Part subjected to that which is converted into Matter. It imports, further, in *Hippocrates*, a Species of Fracture. See **fractura**.

hedricos, ἡδρικός. An Epithet for Remedies appropriated to the *Anus*. *Paulus Ægineta*, L. 3. C. 59.

hedychroi, ἡδύχροι. A Name for certain Pastils or Troches, invented, as is said, by *Andromachus*; and describ'd by *Galen de Antid*, L. 1. C. 10. and *de Theriaca ad Pison*. C. 13. *Paulus Ægineta*, also, describes them. L. 7. C. 11. They are only used for the *Theriaca Andromachi*. According to the *London Dispensatory* they are thus prepar'd.

Take of yellow Sanders, of the Leaves of Marjoram and Marum, and of Asarum-roots, of each two Drams; of Valerian, Costus, Calamus Aromaticus, Aloes-wood, Cinnamon, Schoenanth, and Opobalsam, or Oil of Nutmegs by Expression, of each three Drams; of Cassia-wood, Indian Leaf, or in its Defect Mace, *Indian Spikenard*, Myrrh, and Saffron, of each six Drams; of Amomum, or the lesser Cardamoms, one Ounce and an half; of Mastich, one Dram; of Canary, a sufficient Quantity: Let the Myrrh be dissolved in Wine, and then the Saffron and Mastich be well stirred in with it; afterwards put in the Opobalsam, and mix the other Ingredients, reduced to a fine Powder, with the Whole; and pour upon them Wine enough to make them into thick Troches, which are leisurely to be dried.

hedyosmos. A Name for Mint, on account of its sweet Smell.

hedyphnois.

The Characters are;

The Calyx of the Flower is like a fluted Pillar, or Melon: The little Leaves of the Flower-cup, when the Flower is fallen off, embrace, each of them, one single umbilicated Seed; but in the Middle of the little Head are other naked Seeds, which form an Head.

Boerhaave mentions four Species of this Plant; which are,

1. *Hedypnois*; annua. T. 478.

Lemery, in his *Traité Universel des Drogues*, says, this Species of *Hedypnois* is accounted aperitive, deterfive and vulnerary.

2. *Hedypnois minor*; *Cretica*; annua. T. Coh. 36.

3. *Hedypnois*; annua; capite maximo.

4. *Hedypnois*; quod *Cichorium*; semine adunco; flore triplo majore; capitulis minoribus. Ind. 27. *Boerb. Ind. alt. Plant. Vol.* 1. p. 92.

In the *Historia Plantarum*, attributed to *Boerhaave*, it is said, that they agree in Virtues with the *Succory*.

Hedypnois is also a Name given to the *Dens Leonis*; *latiore folio*.

hedysarum.

The Characters are;

The Flower is collected into a Head, or Spike; the Pod is articulated, and undulated, and each Articulation contains a Seed.

Boerhaave mentions eight Species of this Plant, none of which have any medicinal Virtues attributed to them, except the third, which is the *Hedysarum*; *Clypeatum*; flore suaviter rubente. *Tourn. Inst.* 401. *Boerb. Ind. A.* 2. 51. *Hedysarum Clypeatum*. Ger Emac. 1235. Raii Hist. 1. 929. Park. Parad. 339. *Onobrychis semine Clypeato, aspero major*. C. B. P. 350. *Astragalus Romanus sive Hedysarum Clypeatum siliqua aspera*. J. B. 3. 315. FRENCH HONEYSUCKLE.

This is cultivated in Gardens; flowers in *July*; and is esteem'd deobstruent and vulnerary.

Hedysarum minimum Dalechampii. A Name for the *Fœnum Græcum*; *silvestre*; πολυκεράτιον; minus; *Monspeliense*.

hedyisma, ἡδύσμα. Whatever is mix'd with Aliments, or Medicines, whether liquid or solid, whether destin'd to external or internal Use, in order to communicate to them an agreeable Smell, or Taste.

hel. The same as *Mel. Rudandus*.

helcoma, or **helcosis**, ἡλκωμα, or ἡλκωσις. An Exulceration.

helcos, ἡλκος. An Ulcer.

helcosis. See **helcoma**.

helcydrion, ἡλκύδιον. A small Ulcer, or ulcerose Pustule.

helcysma, ἡλκυσμα. The Scorix of Silver, called also *Encuma*. *Dioscorides*, L. 5. C. 101. says, that it is possess'd of the same Virtues as the *Molybdæna*, and that it is used in cicatrizing Plaster, being styptic, and epispastic.

helcyster, ἡλκυστήρ, from ἡλκω, to draw. A Hook for extracting the Fœtus.

H E L

heleagnus. A Name for the *Gale*; *Frutex Odoratus Septentrionalium*. See **GALE**.

heleniastrum. Bastard Elecampane. *Miller* takes notice of two Sorts, both Natives of *America*. I know no medicinal Virtues attributed to either.

helenium. *Boerhaave* makes this a Species of the *After*: But, according to *Miller*, the Characters are;

It hath a radiated Flower, whose Florets are Hermaphrodite, but the Semiflorets are Female; both these are yellow; the Ovaries, which rest on a naked Placenta, are crowned with a Down: All these Parts are included in a scaly Cup. To these Notes may be added, the Leaves growing alternately on the Stalks, and the Flowers grow on the Top of the Branches.

Enula campana, Helenium. Offic. *Helenium*. Ger. 649. Emac. 793. Raii Hist. 1. 273. Synop. 81. *Helenium vulgare*. C. B. 276. *Helenium sive Enula campana*. J. B. 3. 108. Park. 654. *After omnium maximus, Helenium dictus*. Tourn. Inst. 483. *Boerb. Ind. A.* 94. **ELECAMPANE**.

This is a very large Plant, having great thick Roots, divided into several Branches, brown without, and white within, of a very strong Scent. The lower Leaves are very long and large, soft and hairy underneath, and green above; broadest in the Middle, and sharp-pointed at the End: It has sometimes one, sometimes more Stalks, which are divided, toward the Top, into several Branches, and grow to be four or five Feet high, having the Leaves set on without Foot-stalks, short and broad at the Bottom, and ending sharp-pointed. The Flowers grow on the Tops of the Stalks, they are larger than any Marigold, and near as big as a Sun-flower, consisting of a great Number of long and very narrow Petals, set about large brown fistular Thrums, which pass away into Down, containing slender longish Seed.

It grows in moist Fields and Meadows, in several Parts of *England*; and is pretty much planted in Gardens, for the sake of the Roots, which are only used.

The Roots of Elecampane are pneumonic, carminative, sudorific, and alexipharmic; of great Service in Shortness of Breath, Coughs, Stuffing of the Lungs, and in infectious and contagious Distempers: They are good for the Stone, and Stoppage of Urine; and promote the menstrual Flux, and to that End are mix'd with Chalybeats; they are, also, good for the Gout and Sciatica; outwardly they are used for the Itch, either the Juice or Powder mix'd with a proper Ointment.

Its Root is acrid, bitter, a little glutinous, aromatic, gives a faint Red to blue Paper, and smells like dry'd Orrice.

By the chymical Analysis, beside several acid Liquors, it yields a great deal of Oil, a little of an urinous Spirit, no concreted volatile Salt, the Leaves a good deal; so that this Plant seems to act by an oily volatile Salt, the Sal Ammoniac of which is not entirely disengaged, and is greatly loaded with Sulphur.

The Root is stomachic, pectoral, diuretic, and provokes the Menfes: It is used in Pituits, Decoctions, and Apozema, for the Asthma, inveterate Coughs, Dropsy, and Cachexy. There is a Confection made of these Roots, and they are boiled in Mutt, or Wort. Elecampane-wine strengthens the Stomach, cures the Jaundice, provokes Urine, and protects one from the Injuries of a bad Air. The Extract has the same Virtues. Externally applied, they are resolvent, and good for Diseases of the Skin; they give Name to the *Unguentum Enulatum*, in which Mercury is sometimes used. They are used in Ointments for the Itch. *Martyn's Tournefort*.

Miller enumerates thirty Species of this Plant.

unguentum enulatum. Ointment of Elecampane.

Take of Elecampane-root, boiled in Vinegar, beat and pulped through a Sieve, one Pound; of Turpentine washed in the same Decoction, two Ounces; of yellow Wax, one Ounce; of old Hog's Lard salted, and of old Oil, of each four Ounces; of common Salt, half an Ounce: Let the Lard, Wax, and Oil, melt together; and afterwards add the Turpentine, the Pulp of Elecampane, and Salt, finely powder'd, so as to make all together into an Ointment, S. A.

unguentum enulatum cum mercurio.

Ointment of Elecampane, with Mercury.

This is made of the foregoing Ointment, with the Addition of two Ounces of Quick-silver, first very well kill'd, or incorporated with a sufficient Quantity of Turpentine.

helioselinum. See **APIUM**.

heliacum, ἡλιακόν. An Epithet for the κῦρι μέγα, the large *Cypri*, described in *Paulus Ægineta*, L. 7. C. 22.

helianthemoides. The Name of an *American* Plant, which grows near *Surinam*, mention'd by *Boerhaave*. But I know no medicinal Virtues it is possess'd of.

helianthemum.

The Characters are;

The Leaves are generally conjugated; the Flower-cup consists of three Leaves; the Flower is pentapetalous, rosaceous, let,

less than that of the Cistus, but in other Respects the same: The Fruit is almost globous, tricapular, and divides into three Parts, as into so many rigid carinated Leaves; the Seeds are roundish, and fix'd to small Capillaments.

Boerhaave mentions fifteen Species of this Plant; which are,
1. *Helianthemum*; vulgare; flore luteo. *J. B.* 2. 15. *Tourn. Inst.* 248. *Boerb. Ind. A.* 276. *Panax Chironium, Helianthemum.* Offic. *Chamaecistus vulgaris flore luteo.* C. B. P. 465. *Raii Hist.* 2. 1013. *Helianthemum vulgare.* Park. Theat. 656. *Raii Synop.* 3. 341. *Helianthemum Anglicum luteum.* Ger. 1100. Emac. 1282. DWARF SUN-FLOWER.

All Authors look upon this Species of *Helianthemum* to be vulnerary. *Tabernaemontanus* made an excellent Gargarism of it for the Diseases of the Throat; he ordered this Plant to be boiled in Wine, and added to it a little Roch-alum. *Martyr's Tournefort.*

It grows in mountainous Places, and flowers in June and July.

The Root, taken internally, is good against the Bites of Serpents; and the Tops are effectual for the same Purpose. The Plant is astringent, and a good Demulcent, in the Form of a Decoction, particularly in Diarrhoeas, Hæmorrhages, and Discharges of the Fauces. *J. Bauhine* says, it is good in all Disorders attended with a Flux of any Kind whatever.

2. *Helianthemum*; Ledi folio. *T.* 249.
3. *Helianthemum*; foliis majoribus; flore albo. *J. B.* 2. 16. *Chamaecistus, vulgaris, flore albo majore.* C. B. P. 466.
4. *Helianthemum*; Lavendulæ folio. *T.* 249.
5. *Helianthemum*; flore albo; folio angusto, hirsuto. *J. B.* 2. 17. *Chamaecistus, folio Thymi incanis.* C. B. P. 466. *Chamaecistus, IV.* Clus. H. 74.
6. *Helianthemum*; foliis Rosmarini, splendentibus, subtus incanis. *T.* 250.
7. *Helianthemum*; annuum; angustifolium; florum pedunculis cornucopiodibus. *H. Cath.*
8. *Helianthemum*; Salicis folio. *T.* 249.
9. *Helianthemum*; folio Pervinæ, subtus argenteo, pubescentibus fimbriis; flore luteo.
10. *Helianthemum*; Orientale frutescens; folio Oleæ, flore luteo. *Sher.*
11. *Helianthemum*; folio Rosmarini latiore, splendente, utrinque viridi; flore pallido.
12. *Helianthemum*; folio Rosmarini, viridi; flosculo parvo luteo; fructu in Calyce vesicario recondito.
13. *Helianthemum*; folio Rosmarini; luteum; incanum.
14. *Helianthemum*; folio Thymi incano. *J. B.* 2. 19. *Chamaecistus, tenuifolius, Narbonensis.* H. R. Park.
15. *Helianthemum*; album; Germanicum. *Tab. Ic.* 1062. *Boerb. Ind. alt. Plant. Vol. 1. p.* 276.

Miller enumerates fifty-three Species of this Plant.

HELICE. A Species of Willow.

HELICHRYSUM, from ἥλιος, the Sun, and χρυσός, Gold.

The Characters are;

The Flower-cup is squamose, splendid, and beautiful, on account of its fine Colour, which is like that of Gold, Silver, or some other agreeable Colour. In other respects it resembles the *Filago*.

Boerhaave mentions nineteen Species of this Plant; which are,

1. *Helichrysum*; sylvestre; latifolium; flore parvo singulari. *T.* 452.
2. *Helichrysum*; Orientale. C. B. P. 264. *Park.* 69. *Tourn. Inst.* 453. *Boerb. Ind. A.* 120. *Chrysocome.* Offic. *Heliochryson, sive Amaranthus luteus.* Park. Parad. 374. *Stachas citrina floris magnitudine & colore speciosa.* J. B. 3. 154. ORIENTAL GOLDY-LOCKS.

This grows in *Crete*, and flowers in July. The Root is us'd in Medicine, which is esteem'd drying and astringent. It is said to be good in Inflammations of the Lungs and Liver. It is, also, according to the History of Plants attributed to *Boerhaave*, diuretic, sudorific, attenuating, aperient, and vulnerary. It excites the Menfes, kills Worms, and dissolves extravasated and coagulated Blood.

3. *Helichrysum*; flore suaverubente. *H. C.*
4. *Helichrysum*; seu *Stachas citrina*; angustifolia. C. B. P. 264. *Tourn. Inst.* 425. *Boerb. Ind. A.* 120. *Stachas citrina.* Offic. Ger. 520. *Stachas citrina, sive Amaranthus luteus.* Ger. Emac. 646. *Stachas citrina tenuifolia Narbonensis.* J. B. 2. 154. *Raii Hist.* 1. 281. *Chrysocome sive Coma aurea & Stachas citrina vulgaris.* Park. 69. GOLDY-LOCKS.

This is a shrubby Plant, holding its Leaves all Winter. It has a hard woody Root, which shoots forth a great many slender Stalks; those which bear Flowers, grow to be a Foot high, the others are not above half so long; they are thick-set with long, very narrow, sharp-pointed Leaves, white and hoary, especially underneath. The Flowers grow on the Tops, being Clusters of small, round, dry, scaly Heads, of a beautiful, shining, yellow Colour, which they retain a long while, if preserved with any Care. The Leaves and Flowers have a pleasant Scent, if rub'd between the Fingers. It grows in some Parts of *France*

and *Italy*, and is frequently planted in Gardens, flowering in July and August. *Dale* says, it flowers in May; *Ray* says, in April and May.

It is accounted good for Obstructions of the Liver and Spleen, dissolves congeal'd Blood, and provokes Urine. *Matthioli* gives it great Commendation; but it is seldom or never us'd in the Shops.

Dale says, it is good in Obstructions of the Menfes, that it dries up Catarrhs, and kills Worms.

5. *Helichrysum*; Americanum; latifolium. *T.* 453.
6. *Helichrysum*; montanum; flore rotundiori, candido. *T.* 453. *Boerb. Ind. A.* 120. *Pes Cati.* Offic. *Gnaphalium montanum, sive Pes Cati.* Park. 690. *Gnaphalium montanum.* Parad. 375. *Gnaphalium montanum album.* Ger. 516. Emac. 640. *Raii Hist.* 1. 283. Synop. 83. *Pilosella minor quibusdam aliis Gnaphalii genus.* J. B. 3. 162. CAT'S-FOOT.

This Plant is vulnerary and astringent. *Du Remou* says, that they us'd to send from *Paris* to *Angiers* and *Tours* for this Plant, to make the Syrup of it, till one Mr. *Gouet*, an Apothecary of *Paris*, discover'd a good deal of it about that City. This Syrup is good for Defluxions of the Breast, especially when the Patients complain of Serosities, tickling down the Throat and Bronchia. The simple Syrup is made of the Cat's-foot alone; it is called *Syrupus de Hispidula, seu Aeluropa, vulgo de Pede Cati.* The compound Syrup is made of Barley-water, Jujubes, Raisins, and Liquorice. *Schroder* adds Sebestens, Dates, Figs, Colts-foot, Sage of *Jerusalem*, and Spleenwort.

Dale says, that it is drying and astringent; and that the Syrup is in Esteem for Exulcerations of the Lungs, Spitting of Blood, and, particularly, for the Chin-cough.

7. *Helichrysum*; montanum; flore rotundiori, variegato. *T.* 453.
8. *Helichrysum*; Africanum; foetidissimum; amplissimo folio. *T.* 454.
9. *Helichrysum*; Africanum; foetidissimum; amplissimo folio. *T.* 454.
10. *Helichrysum*; sylvestre; latifolium; capitulis conglobatis. C. B. P. 264.
11. *Helichrysum*; arboreum; Africanum; Salvix folio odorato.
12. *Helichrysum*; Africanum; folio oblongo, subtus cano; supra viridi; flore luteo. *Ind.* 42.
13. *Helichrysum*; Africanum; folio oblongo, angusto; flore rubello, postea aureo. *Ind.* 42.
14. *Helichrysum*; Africanum; folio oblongo, tomentoso, caulem amplectente; flore luteo. *Ind.* 43.
15. *Helichrysum*; Africanum; argenteum; repens; flore pulchro, magno, albo, disco aureo. *H. R. D.*
16. *Helichrysum*; Africanum; arboreum; foliis incanis, latioribus. *H. R. D.*
17. *Helichrysum*; Africanum; frutescens; foliis Crithmi marini. *H. A.* 2. 113.
18. *Helichrysum*; Africanum; frutescens; foliis *Stœchados citrinæ*; flore aureo. *H. R. D.*
19. *Helichrysum*; angustissimo folio. *T.* 452. *Boerb. Ind. alt. Plant. Vol. 1. p.* 120.

The eighth and ninth Species smell like Castor, or Asa-foetida, and are us'd by the *Hottentots* as Antihysterics; they are balsamic, and good against Palpitations of the Heart.

HELIOCAES, ἡλιοκάης. The Name of a compound escha-

rotic Powder, describ'd by *Paulus Aegineta, Lib. 7. Cap. 13.*

HELIOCHRYSUM. See HELICHRYSUM.

HELIOSCOPIOS. An Epithet for the *Tithymalus*; subro-

tundus; foliis majoribus, crenatis.

HELIOSIS, ἡλιωσις. Insolation, that is, Sitting in the Sun.

HELIOTROPIUM.

The Characters are;

The Flower consists of one Leaf, and is shap'd like a Funnel, having its Centre wrinkled and folded, and its Brim cut into ten Segments, alternately unequal: These Flowers are collected into a long reflex'd Spike, resembling a Scorpion's Tail: Each Flower is succeeded by four naked gibbous Seeds.

Boerhaave mentions ten Species of this Plant; which are,

1. *Heliotropium*; majus; Dioscoridis. C. B. P. 253. *Tourn. Inst.* 139. *Boerb. Ind. A.* 190. *Heliotropium; majus.* Offic. Ger. 264. Emac. 334. *Park. Theat.* 438. *Raii Hist.* 1. 502. *Heliotropium majus, flore albo.* J. B. 3. 604. TURNSOLE.

Dale.

The Leaves of this Plant are very bitter, and give a very deep-red Colour to blue Paper; which shews that their Salt is no otherwise different from that of the Earth, but in the Sal Ammoniac's being disengag'd a little more than the other Principles, and mix'd with a great deal of fetid Oil, and Earth: The Juice of this Plant makes Warts fall off, and takes away the Ring-worm. It is resolvent, and proper to stop spreading Ulcers. *Martyr's Tournefort.*

It is cultivated in Gardens, and flowers in the Summer. A Decoction of the Herb purges off pituitous Humours; and is good against the Bites of Scorpions. The Seeds repress fleshy Excrecences,

Excrefcences, make penfible Warts fall off, provoke the Menfes, and haftten Delivery.

2. Heliotropium; Canariense; arborefcens; folio Scorodoniae. *H. A.* 129.

3. Heliotropium; arborefcens; folio Teucrit; flore albo in Capitula denfa congefco.

4. Heliotropium; Americanum; coeruleum; foliis hormini. *M. H.* 3. 451.

5. Heliotropium; Americanum; coeruleum; foliis hormini anguftioribus. *M. H.* 3. 452.

6. Heliotropium; Americanum; procumbens; glaucophyllum. *Flor.* 2. 61.

7. Heliotropium; minus; anguftifolium; arvenfe; feu hirsutum. *Flor.* 2. 61.

8. Heliotropium; minus; anguftifolium; palufre; feu glabrum. *Flor.* 2. 61.

9. Heliotropium; minus; fupinum. *Tourn. Inf.* 139. *Boerb. Ind. A.* 119. *C. B. P.* 253. *Heliotropium minus*. *Offic. Ger.* 264. *Emac.* 334. *Rail Hift.* 1. 501. *Park. Theat.* 438. *Heliotropium minus quorundam*. *J. B.* 3. 605. *Heliotropium humi fuffum*, flore minimo, femine magno. *Tourn. Corol.* 7. **SMALL**

TURNSOLE. It is cultivated in Gardens; the Herb is us'd, and agrees in Virtues with the *Heliotropium*; *majus*; *Dioscoridis*.

10. Heliotropium; Mexicanum; mali Limonii foliis; Tlachichinoa patlahoac; feu Herba ufta; latifolia. *Rech. Hern.* 292. *Boerb. Ind. alt. Plant. Vol.* 1. p. 190.

Befides the before-mention'd, *Dale* mentions another *Heliotropium*; which is the

Heliotropium tricoccum. *Offic. C. B.* 253. *Rail Hift.* 1. 165. *J. B.* 3. 606. *Ger.* 265. *Emac.* 335. *Park.* 439. *Ricinoides ex qua paratur Tournifol Gallorum*. *Tourn. Inf.* 655. **TURNSOLE.**

This Turnfole is a Plant which grows in various Parts of *Languedoc*, and is the *Heliotropium*, or *Ricinoides*, of Botanifts. Its Root, which is white, round, and generally pretty ftrait, fends out a round Foot-ftalk, which is at laft divided into various Ramifications. Its Leaves are of a pale-green, or, as it were, a cineritious Colour. Its Flowers, which are of a yellow Colour, are shut up in fmall Buds, which form a kind of Clufter: They are of two Sorts, fince fome of them are barren, and become dry, in proportion as the Clufter increafes; whilst others of them produce Fruit.

The Juice of the Berry of this Plant being exprefs'd, Linen Rags are impregnated with it, and then expos'd to the Vapour of Urine, which gives them a red Colour. Thefe Rags are exported to *Holland*, where they extract the Lumps from them by a Method, which is, hitherto, a Secret: It is probable, however, that they are a kind of *Fæcula*. The Tincture of *Heliotropium*, or Turnfole, ferves, in Chymiftry, to try Acids and Alcalis; but is not us'd in Phyfic. There is a third Sort of Turnfole, brought from *Portugal*, which is us'd by the Scarlet-dyers. *Geoffroy*.

Alcaline Salts induce no Change on the Turnfole; Acids, according to their Strength, redden it by degrees, from a very faint Red to a very lively one: It is a Colour extremely fufceptible of Alteration; for the weakeft Acid will change it. *Martyn's Tournefort*.

Dale fays, it is us'd in Medicine againft Cancers, gangrenous Ulcers, and ftumous Swellings.

HELIOTROPIUM. *Offic. Heliotropius*. *Worm.* 94. *Aldrov. Muf. Metall.* 895. *Boet.* 257. *De Lact.* 80. *Charlt. Foff.* 33. *Calc. Muf.* 219. *Lapis Porraceus guttatim, punctulatim, vel fibratim fanguineus, Heliotropium dictus*. *Cup. Hort. Cath. Supp.* 2. 50. **THE HELIOTROPE, or COMMON BLOODSTONE.**

This is an opaque Gem, of a green Colour, mark'd with bloody Spots, or Veins. It is faid to refift Poison, and to ftop Hæmorrhages.

HELITIS, ἡλίτις. A Name for the *Squama Aëris*. See *Æs*.

HELIX. The external Circle, or Border, of the Ear.

HELLEBORASTER. A Name for the *Helleborus*; *niger*; flore viridi.

HELLEBORASTER MAXIMUS. A Name for the *Helleborus*; *niger*; *fætidus*.

HELLEBORASTRUM. See **HELLEBORUS**.

HELLEBORINE.

The Characters are;

The Root is fibrous, the Leaves nervous, and fomewhat like thofe of white Hellebore; the Extremity of the Pedicle, or Foot-ftalk, bears a Flower confifting of fix difimilar Petals, five of which are expanded, and have fome Refemblance; the fixth feems interpos'd like one of another kind; the Flowers are dispos'd in the Form of a Spike; the Ovary is like that of the Orchis.

Boerhaave mentions four Species of this Plant; which are,

1. Helleborine; latifolia; montana. *C. B. P.* 186. *Rail Hift.* 11. 1230. *Synop.* 3. 383. *Boerb. Ind. A.* 2. 153. *Tourn. Inf.* 436. *Helleborine*. *Offic. Ger.* 358. *Emac.* 442. *Elleborine flore viridante*. *Park. Theat.* 218. *Elleborine Dodonæi*. *J. B.* 3. 516.

BASTARD HELLEBORE. It grows in Copfes, and shady Groves; and flowers in May.

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The Herb is us'd, which is fuppos'd, by fome, to agree in Virtues with white Hellebore; but it is feldom or never found in our Shops. *Dale*.

2. Helleborine; flore carneo. *C. B. P.* 187. *M. H.* 3. 487. *J. B.* 3. 518.

3. Helleborine; anguftifolia; paluftris; five pratensis. *C. B. P.* 187.

4. Helleborine; montana; anguftifolia; purpurafcens. *C. B. P.* 187.

HELLEBOROIDES.

The Characters are;

The Leaves are like thofe of the *Aconitum*; the Extremity of the Pedicle runs into a fmall Leaf, which is divided into nine Rays, expanded like a Star, and representing a Calyx. The Calyx is floscular, confifting of fix floscular kind of Leaves. The Flower is produc'd in the Centre of a Leaf, confifts of fix fmall bifid Petals, and is furnifh'd with a Multitude of Stamina; in other refpects it agrees with the Hellebore.

Boerhaave mentions but one Species of this Plant; which is the Helleboroides; hyemalis. *Helleborus, ranunculoides, hyemalis, radice tuberoſa, flore in medio folii*. *H. L.* 309. *Helleborus, niger, tuberoſus, ranunculi folio, flore luteo*. *T.* 272. *Helleborus ranunculoides, præcox, tuberoſus flore luteo*. *M. H.* 3. 359. *Aconitum unifolium, luteum, bulbolum*. *C. B. P.* 183. *Ranunculus, cum flore in medio folio, radice tuberoſa*. *J. B.* 3. 414. *Aconitum, luteum, minus*. *Dod.* p. 440. *Aconitum, hyemale*. *Fl. Eycl. Hyem.* o. 1. *F.* 5. *Fig.* 2.

The *Historia Plantarum*, attributed to *Boerhaave*, fays it agrees in Virtues with the black Hellebore.

HELLEBORO-RANUNCULUS.

The Characters are;

The Leaves are fingle, and roundly turn'd like thofe of the *Ranunculus*. The Calyx is pentaphyllous, the Leaves being of the fame Colour with the Flower. The Flower is pentapetalous, roſaceous, and furnifh'd with numerous Stamina. The Fruit confifts of a Multitude of Vaginulæ, or fmall Sheaths, each furnifh'd with its Tube, and collected into an Head, like the *Ranunculus*.

Helleboro-ranunculus; flore luteo globoſo. Helleborus, ranunculoides, flore globoſo. *H. L.* 309. *Helleborus, niger, ranunculi folio, flore globoſo, majore*. *T.* 272. *Pſendo-helleborus, ranunculoides, luteus, flore globoſo*. *M. H.* 3. 461. *Ranunculus, aconiti folio, flore globoſo*. *C. B. P.* 182. *Ranunculus, flore globoſo, quibufdam flos Trollius*. *J. B.* 3. 419. *Ranunculus, flore globoſo*. *Dod.* p. 430. *H. Eycl. Vern.* o. 1. *F.* 12. *Fig.* 2.

The *Historia Plantarum*, attributed to *Boerhaave*, fays that this Plant is cauftic, like the *Ranunculus*.

HELLEBORUS NIGER. Black Hellebore.

The Characters are;

The Leaves are digitated, the Calyx pentaphyllous, or polyphyllous, and floscular. The Flower is roſaceous, and confifts of five, ten, or fifteen fmall fiſtulous Petals, like Tubes, in fuch a manner as to reſemble a Multitude of hollow tubulated Horns; it is alfo furnifh'd with very numerous Stamina. In the Centre of the Flower grows the Ovary on the Apex of the Pedicle, and confifts of two, three, four, or more erect Pods, furnifh'd with a long Tube, and becoming a Fruit, confifting of membranaceous Vaginæ, or Sheaths, which open lengthwife, and are full of roundiſh or oval Seeds.

Boerhaave mentions five Species of black Hellebore; which are,

1. *Helleborus niger fætidus*. *C. B. P.* 185. *Tourn. Inf.* 272. *Elem. Bot.* 235. *Boerb. Ind. A.* 296. *Merc. Bot.* ii. 24. *Phyt. Brit.* 57. *Helleborastrum*. *Offic. Cod. Med.* lviii. *Pharm. Bat.* 57. *Mer. Pin.* 61. *Helleboraster*. *Rupp. Flor. Jen.* 131. *Helleboraster maximus*. *Ger.* 826. *Emac.* 976. *Rail Hift.* 1. 698. *Synop.* iii. 271. *Helleboraster maximus, five Confiligo*. *Park. Theat.* 212. *Helleboraster niger ramosus anguftifolius ſemper virens elatior*. *Hift. Oxon.* 3. 359. *Helleborus niger ſylveſtris, adulterinus etiam Hyeme virens*. *J. B.* 880. *Helleborus ſylveſtris adulterinus, etiam Hyeme virens*. *Chab.* 528. **SETTERWORT.**

The Country-people frequently give the Powder of this Herb to their Children, for the Worms: But how dangerous a Medicine it is, may be underſtood by the following Accident: Some Years ago, when the Ground was cover'd with a very deep Snow, a Flock of Sheep, in *Ox-mead*, near *Fulborn* in *Cambridgeſhire*, finding nothing but this Herb above the Snow, eat plentifully of it. They ſoon appear'd terribly out of Order, and moſt of them died, a few being ſav'd, by timely giving them ſome Oil, which made them caſt up this Herb. Some of thofe which died, being open'd, were found to have their Stomachs greatly inflam'd. This Account I had from the Man who attended them: He went with me to the very Spot, and, as he pointed out the Herb which poifoned them, I found it to be this Species of Hellebore. *Martyn's Tournefort*.

It grows in woody Places, though but rarely, and flowers in February and March. The Leaves are uſed, which, being dried and pulveriz'd, are exhibited in ſmall Quantities to Children affected with Worms; and are eſteem'd, by the common ſort of People,

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a most potent and certain Remedy: But *Tragus* very well observes, that it is not to be used internally, but avoided as a most pernicious Herb. *Dale*.

2. *Helleborus*; *niger*; *hortensis*; *flore viridi*. C. B. P. 185. *Merc. Bot.* 2. 23. *Phyt. Brit.* 57. *Raii Hist.* 1. 697. *Synop.* 3. 271. *Boerh. Ind. A.* 296. *Tourn. Inst.* 272. *Elem. Bot.* 235. *Rupp. Flor. Jen.* 131. *Helleboraster*. *Offic.* *Helleboraster minor flore viridante*. *Park. Theat.* 212. *Helleboraster minor*. *Park. Parad.* 344. *Helleborastrum*. *Ger.* 824. *Emac.* 976. *Mer. Pin.* 61. *Helleborus niger sylvestris, ramosus, latiore folio deciduo*. *Hist. Oxon.* 3. 359. *Helleborus niger vulgaris flore viridi vel herbaceo, radice diuturna*. J. B. 3. 636. *Chab.* 527. BEAR'S-FOOT. *Dale*.

The Leaves, infus'd, for three or four Hours, in Ale, and drank three Mornings, fasting, are accounted an excellent Preservative against the Small-pox, and other contagious Diseases. *Raii Hist. Plant.*

It grows in mountainous Places, and flowers in *March* and *April*. The Parts us'd in Medicine are the Root and Leaves. The Leaves are recommended by Dr. *Johnson*, against contagious Diseases. The Root has the same Virtues with that of the black Hellebore, and may be taken instead of it; it purges the lower Belly, evacuating Phlegm, and yellow Bile. Farriers and Grasers put a great deal of Confidence in this Herb, against the Murrain among their Horses and Cattle. Their Method is to thrust a Bodkin through the Dewlaps of their black Cattle, through the Skin under the Neck of their Horses, and through the Ears of their Sheep, and then put a Fibre of the Root into the Wound; whence it is called a *Peg-Root*. *Dale*. The same Operation is describ'd by *Columella*, one of the *Rei Rusticæ Scriptores*, who wrote under the Emperor *Claudius*.

3. *Helleborus*; *niger, flore roseo*. C. B. P. 186. *Boerh. Ind. A.* 297. *Hist. Oxon.* 3. 359. *Helleborus niger*. *Offic.* *Helleborus five Elleborus*. *Cod. Med.* 58. *Helleborus niger vernus*. *Ger.* 825. *Emac.* 976. *Park. Theat.* 211. *Parad.* 344. *Raii Hist.* 1. 697. *Helleborus niger flore albo*. J. B. 3. 634. *Chab.* 527. *Helleborus niger angustioribus foliis*. *Elem. Bot.* 235. *Tourn. Inst.* 272. *Rupp. Flor. Jen.* 130. *Melampodium*. *Pharm. Bat.* p. 71. BLACK HELLEBORE.

This Plant has blackish Roots, somewhat thick at the Head, and full of long and pretty large Fibres of the same Colour. The Leaves seldom grow above a Span high, on pretty thick round Stalks, being digitated, or divided into six or seven Parts, which are narrow next the Stalk, and broadest toward the End, where only they are indented about the Edges. What are usually called the Flowers, grow single on the like thick Foot-stalks, consisting of five greenish, white, pretty large, round Leaves, having a Blush of Purple on them, which fall not off till the Seed is ripe, and therefore are accounted, by Mr. *Ray*, to be only the Calyces, making the Flowers to be the fistular Petala, which encompass the Chives in the middle. It flowers sometimes at the latter End of *September*, whence it is called *Christmas Flower*.

Black Hellebore purges downwards, and expels Flegm and Bile, given either alone, or with Scammony and Salts; the Dose is half a Dram, or a Dram; it is boiled also with Lentils, and in purging Broths. It is effectual in the Epilepsy, Melancholy, Mania, Gout, and Palsies. Used in Pessaries, it provokes the Menfes, and kills the Fetus: Put into Fistulas, and suffer'd to remain there for three Days, it cleanses them. In like manner, in the Case of Deafness, it is introduced into the Ear, and left to remain there for two or three Days. It cures the Psora, being anointed on the Parts with Frankincense, or Wax, or Pitch, and Oil of Cedar. Made into a Cataplasm by itself, with Vinegar, it cures the Alphi, Lichen, and Lepra. Boil'd in Vinegar, and the Mouth washed therewith, it eases the Tooth-ach; it is also an Ingredient in septic Medicines. Mixed with Barley-flour and Wine, it makes an effectual Cataplasm in hydropical Cases. Planted near the Root of Vines, it communicates a cathartic Quality to the Wine made of them. It is usual, also, to sprinkle the Houses with it, from a Persuasion, that it cleanses and purifies them: Out of the same religious Apprehension, also, when they dig it up, they stand, and make their Prayers to *Apollo* and *Æsculapius*, and watch against the Flight of an Eagle; for that Bird, they say, brings Danger with it, and even Death, to him whom it shall find digging up the Hellebore. They must, also, be very quick in taking it up, because it emits such Exhalations as oppress the Head; for which Reason they take Garlick beforehand, and now-and-then a Sup of Wine, by way of Precaution. *Dioscorides, Lib. 4. Cap.* 151.

Galen de atra Bile, Pliny, and *Dioscorides*, mention a famous Cure which *Melampus* perform'd upon the Daughters of *Prætus*. This Shepherd, observing his Goats always purg'd after feeding on Hellebore, gave the Milk of these Goats to the Daughters of *Prætus*, who were so very mad as to fancy themselves Cows, soon after the Goats had eaten Hellebore. The Experiment succeeded. See the PREFACE.

Dr. *Fretind* tells us, that Hellebore was, amongst the Antients, reckoned a rough Medicine, as well as dangerous. This Opinion, he seems to think, might take its Rise from the Manner they

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used to give it in: For the Dose, as we learn from *Aræteus*, was often to the Quantity of two Drams. *Albuaris* is one of the first who thought it could be taken very safely, without creating any great Disorder; and commends it highly as an admirable Remedy, for several Intentions. But then the Dose he orders, seldom exceeds a Dram.

The Experience of the Moderns has confirm'd the Justness of his Observation: From such different Accounts of its Operation, among other Reasons, some would infer, that the black Hellebore of the Antients is lost, and that what we use now is another Plant.

What we now use is that above-describ'd: It is a very innocent and efficacious Medicine; and when given in a moderate Dose, is so far from being a violent Purger, that very often it does not purge at all; and though it sometimes occasions Vomiting, yet frequently it does not so much as offend the Stomach. *Avicenna* says, it provokes Urine, and the Menfes; which latter Quality is sufficiently known. In Dropsies more wonderful Effects have been produced from it than any other Diuretic. However 'tis a Remedy which will not always equally work Wonders.

Avenzoar gives an Account, that his Father found out a particular Virtue in the Flowers of *Nenusar*, or *Nymphæa*, in correcting black Hellebore.

It potently purges melancholy Humours, and consequently is a useful Medicine in all Affections proceeding from them, as the Mania, Madness, the hypochondriac Passion, Elephantiasis, Herpes, Cancer, Quartan, Vertigo, Epilepsy, Apoplexy, and Ich; but it ought to be administer'd with Caution, and to none but robust Persons, because of the violent Manner in which it is subject to work; but there is less Danger in the Decoction. It is corrected with Mastich, Cinnamon, Anise, Fennel, and the like. Some write that black Hellebore, rightly prepar'd, is a harmless Medicine, and may safely be given to Children, Women with Child, and infirm Persons. The Dose in Substance is from fifteen Grains to half a Dram, or two Scruples; they who are very robust may take a Dram of the Infusion, or from one Dram to two of the Decoction.

It is exhibited either in Substance, Infusion, or Decoction; in Substance, first, in Powder, as in the following Prescription:

Take of Powder of black Hellebore, two Scruples; of Ginger, Mastich, red Roses, Cinnamon, Anise, each four Grains: Mix them in Broth; for Children let the Quantity of Hellebore be only one Scruple. Secondly, it is taken in Pills, made of the Powder aforesaid, and a proper Syrup.

All the Virtue of this Root lies in its Bark, and small Fibres; for the Pith, or medullary Substance, is to be thrown away: It is best corrected with Cloves, according to the Advice of M. *Herman*, Head Botanist of the Physic-garden at *Leyden*. M. *Hartman*, for an immoderate Flux of the Menfes, order'd a Girdle compos'd of the fresh Leaves of black Hellebore, sew'd together, to be ty'd about the Waist. *Raii Hist. Plant.*

Though this has been in the greatest Esteem among the Antients, yet it now grows neglected, either through our Unacquaintance with its Virtues, or the Sort which comes to us not having the Efficacy of that which they made use of. The latter may be our Unhappinefs; for Botanic and Dispensatory Writers differ much in determining which is the true officinal Hellebore. *Matthioli* tells us, that is the right which flowers like a Rose; others, that it has a Sky-colour'd Flower; and *Bauhine* takes it to be *Elleborus niger, tenui folio, Euphthalmi flore*. And by the Strength and Manner of the Operation of that they speak of, ours seems to be of the same Species, but much weaker in Efficacy. What comes to us now, will not operate much by Stool; but is a powerful Alterative, and wonderfully affects the Juices in the most remote Recesses. For this Reason it greatly promotes all the thinner Secretions, and particularly that by Sweat, especially if join'd with any convenient Volatiles. This Root is infallible in Obstructions of the Menfes, and where Steel is not only ineffectual, but improper; as in plethoric Habits; for in such Steel will sometimes raise hysteric Commotions, Convulsions, and a sort of Furor Uterinus; whereas this so thins the Blood, as to dispose it to that Discharge without making it more impetuous. So that tho' Steel and Hellebore both promote the Menfes, yet they do it different Ways, one by increasing the Blood's Velocity, and giving it a greater Momentum in the Arteries of the Uterus, and the other by dividing it, and rendering it more fluid. In all nervous Cases the most antient Practice confirms its Efficacy, but especially in a Mania or Distraction. In this last Intention it has been so famous as to make it even proverbial, *To send such a one to Anticyra*, whom they would insinuate to be mad, because that Country produced the greatest Quantities of this Drug. *Paracelsus* commends it as instrumental in procuring long Life; to which Purpose one *Tachius* made Trial of it upon himself.

M. *Boulduc* gives some Experiments, which he made upon this Root, in the *Memoirs of the Academy of Sciences*, for the Year 1701. We shall not take notice of those made by Distillation, because

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because he himself believed them to be of no Consequence. The Extract which he procured with Spirit of Wine was very little in Quantity, because this Root contains few resinous Parts: And I am, says he, the more confirmed in this, since from what remained I was able to get a great Quantity of an Extract with Water.

He also made an Extract of the Root with Water, where-with was drawn all that could be extracted; for from the Re-sidue there was nothing to be got by means of Spirit of Wine. Whence it seems reasonable to conclude, that the saline Parts are able so to dissolve its few resinous ones, that both may be drawn off by Water, without the Aid of Spirit of Wine. He further remark'd, that the first Extract, which was purely re-sinous, and made with Spirit of Wine, purged little, and with Irritation; that the Extract made of its Remainder with Water purged not at all, but was very diuretic; and that, on the other hand, the Extract made first with Water, and without Spirit of Wine, purged very gently. And this, he says, he has observed of most Purgatives: Whence he thinks, that the Extract, made by Spirit of Wine alone, ought to be suspected; since, being deprived of its proper Salts, which, when joined to the Fer-ment of the Stomach, open, divide, and attenuate the Refin, it happens that its thick and sulphureous Parts adhere to the Fibres of the Stomach, and cause Gripings, and, by remaining undissolved some time, excite a Tenesmus. And this is confirm'd by Experience; for the most able practical Physicians correct the Refin with Salt of Tartar. He confesses that to be a good Method in these Cases; but supposes one may do without it, by leaving to those resinous Extracts the proper Salts which Nature has endued them with. Whence he affirms, that the way of making the Extract with Water is preferable to the common way of doing it by a sulphureous Menstruum; since thereby the Substance is freed from its terrestrial Parts, without depriving it of any of its natural Principles. He takes notice, that the Hel-lebore, which is brought from *Switzerland*, is preferable to that which comes by the Way of *England*. This latter, whether it is spoiled by keeping, or losing its Virtue in Transportation, he found to have little or no Effect.

So that, by this Person's Account, as well as the Reasons above given, there is Ground to suspect very much, that our Hellebore falls greatly short of the Goodness of that used by the Antients; since we find there is so great a Difference between it, and what so near Neighbours as the *French* have in Use among them at this Time. Of ours, fifteen or twenty Grains, in Pow-der, are frequently given as an Alterative and a Sudorific; and in Tincture, where the Root has been one Part, and the Menstruum three, it may be given to sixty, or one hundred Drops to a Dose. Its Virtues are best drawn, by rubbing a little Salt of Tartar with it in a gross Powder, and letting it lie till the Air makes it run; for that so penetrates into the very Substance of the Root, that its Parts immediately join with the Menstruum, as soon almost as put into it. Small Wine is the best, as most likely to take up all the Parts of any medicinal Efficacy.

The only Preparation of black Hellebore, in the College Dis-pensatory, is the *Tinctura Hellebori nigri*, which is thus prepar'd:

Take of black Hellebore-root, two Ounces; of Salt of Tartar, one Dram; of Cochineal, one Scruple; of *French* Brandy, one Pint: Draw out the Tincture by a warm Heat.

This is an admirable Medicine for many Purposes, but parti-cularly it excels in opening uterine Obstructions; and in san-guine Constitutions, where Steel is hurtful, this never fails of forcing the menstrual Discharges. In short, it is a very conven-ient Form to give it, in all Cases where the Roots do Service. Its Dose is from twenty to one hundred Drops, in any suitable Vehicle. Some make it with a more spirituous Menstruum; but this seems most likely to draw out both the resinous and gummy, or saline Parts of the Simple.

TINCTURA MELAMPODII.

Take Roots of black Hellebore, one Dram and an half; Cala-mus Aromaticus, two Ounces; Galangal, half an Ounce; Saffron, one Dram and an half; the lesser Cardamoms, three Drams; Canary, three Quarts: Digest in a close Vessel twenty Hours in a Sand-heat, and then press it out, and filtre it for Use.

This is given from two to three Spoonfuls, in a Dose over Night, or in the Morning: Its Operation is by Stool; and it is prescribed for maniacal, hypochondriacal, and dropsical Per-sons: In which obstinate Cases, it is accounted a very good Medicine.

4. Helleborus; niger; flore roseo; minor; Belgicus.

5. Helleborus; niger; trifolatus. *Ald. Hort. Farnsi*, 92. *Boerb. Ind. alt. Plant. Vol. 1. p. 246.*

HELLESPONTIA, ἡλλησποντία. The Name of two Plaisters described by *Galen*, *de Comp. M. per G. L. 6. C. 10, 11.*

HELMINTHES, ἑλμινθες. Worms.

HELMINTHAGOGA. Medicines which expel Worms.

HELMINTHICA. The same as HELMINTHAGOGA.

HELNESED. Coral. *Rulandus*.

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HELODES, ἑλωδης, from ἑλῶ, A Fen, or marshy Place: An Epithet given to certain Fevers attended in the Beginning with profuse Sweats, which afford no Relief. Mean time the Tongue is dry and rough, and the Skin hard, and, as it were, parched.

HELOSIS, ἡλωσις. A Disorder of the Eye; consisting in an Eversion, or turning up, of the Eye-lids. *Gorræus*.

HELOTIS. A Name for the Diltemper call'd *Plica Polonica*.

HELXINE. A Name for the *Parietaria*; *Officinarum* & *Diof-coridis*. It is, also, a Name for the *Convolvulus*; *minor*; *arvensis*; *flore Roseo*.

HEMERALOPS, ἡμεράλωψ, from ἡμέρα, a Day, and ὤψ, the Eye. A Defect in the Sight, which consists in being able to see in the Day-time only, and not in the Evening. It is the Re-verse of the *Nyctalops*.

HEMERIS. A Name for the *Quercus*; *cum longo Pediculo*.

HEMEROCALLIS. A Name for a sort of Lily, call'd *Lilium*; *Hemerocallis*; *Chalcedonica*; *Polyanthos*. *Boerb. Index alt. Plant.*

HEMEROCOETOS, ἡμερόκοιτος. A Name for the Fish otherwise call'd *CALLIONYMUS*.

HEMICERAUNIOS, ἡμικεραύνιος. The Name of a Band-age, in *Galen*, for the Back and Breast.

HEMICRANIA, ἡμικρανία. A Species of Head-ach, affect-ing only one Side of the Head.

HEMIECTON, or HEMIECTEON, ἡμiekτον, or ἡμiekτεον. Half of an HECTEUS. But, in *Hippocrates*, *Libro de his que Uterum non gerunt*, it seems to signify a Pot capable of con-taining this Measure, into which Ingredients were to be put for a Suffitus, or Fumigation, in case of uterine Disorders there men-tioned. Upon this, the Woman was directed to sit, with her Legs wide asunder, in order to receive the Vapour into the Va-gina and Uterus.

HEMIMOERION, ἡμιομόριον. Half a Dram. *Erotian*. Or, in general, the Half of any thing.

HEMINA, ἡμίνα, κοτύλη, an ancient *Greek* Measure, the same with the *COTYLE*; which see.

HEMIOBOLION, HEMIOBOION, ἡμιοβόλιον, ἡμιοβόλιον, ἡμιοβόλον, from ἡμισυ, half, and ὀβολός, an Obolus, a Weight, the half of an Obolus, or the twelfth Part of a Drachma, or Dram, that is, five Grains.

HEMIOLION, ἡμιόλιον, from ἡμισυ, half, and ὅλος, the Whole, signifies in general, the Whole of any thing, and half as much more, or the same as *Sesquialtera*; but in *Galen*, *de C. M. S. L.* it is used particularly for the Weight of an Ounce and an half.

HEMIONIS, ἡμιονίς, from ἡμίονος, a Mule, in *Hippocrates de Natura muliebri*, is Mule's Dung, which he there prescribes to be burnt, triturated, and macerated in Urine, and so admin-istered in the *Fluor Albus*.

HEMIONITIS, ἡμιονίτις, from ἡμίονος, a Mule. *Mules-fern*.

It resembles the *Lingua Cervina*, or Hart's-tongue, only the Leaves are more simple, and hollow'd into a Sinus at the Base, with two Lobes like Ears, or jagged at the same Part. *Boerb. Index alter, Pars 1. p. 24.*

Boerhaave mentions but one Species of this Plant; which is,

Hemionitis; vulgaris. *C. B. 353. Rati Hist. 1. 135. Tourn. Inst. 546. Boerb. Ind. A 24 Hemionitis. Offic. J. B. 3. 758. Ger. 977. Hemionitis major. Ger. Emac. 1138 Park. 1047. MULES-FERN.*

It is said to be produc'd in *Italy*. The whole Herb is us'd; and, according to *Dioscorides*, consumes the Spleen, if drank in Vinegar. According to *Bobart*, it is good against Disorders of the Spleen, and possess'd of the same Virtues with the Hart's-tongue. According to *Boerhaave*, it is astringent, vulnerary, pectoral, and good against Disorders of the Spleen, and Spittings of Blood. *Dale*.

HEMIONIUM, ἡμιόνιον, a Name, in *Dioscorides*, for the ASPLENON, or ASPLENIUM.

HEMIOPON, ἡμιόπον, in *Galen's* Exegesis, is expounded by ἡμισυ, half. *Foesius*.

HEMIPAGIA, the same as HEMICRANIA. *Blancard*.

HEMIPLEGIA, HEMIPLEXIA, ἡμιπληγία, ἢ ἡμιπληξία, from ἡμισυ, half, and πλῆσσω, to strike. An Hemipleggy, or Hemi-plexy, is when only half of the Head, and of the rest of the Body, is affected after the manner of an Apoplexy. See APOPLEXIA, CAPUT, PARALYSIS.

HEMIRHOMBION, ἡμιορρόμβιον, the same as HEMITOMON.

HEMITOMON, ἡμιτομον, from ἡμισυ, half, and τέμνω, to cut, signifying cut thro' the Middle; a sort of Bandage, mention'd by *Hippocrates*, κατ' ἰσφ. call'd also *Semirhombus*, or half a *Rhom-bus*, from its Figure.

HEMITRITÆUS, ἡμισιτρίαιος, from ἡμισυ half, and τρι-ταίος, third, or tertian, an Epithet of a Fever, is a *Greek* Word, signifying the same as SEMITERTIANA; which see.

HEMITYBION, ἡμισύβιον, according to *Hesychius*, is a Linen Piece of Apparel fringed on both Sides; according to the Schollast on *Aristophanes's Plutus*, it is a Handkerchief, or soft Piece of Linen, to wipe off Sweat. But *Galen*, in his Exegesis, makes

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makes it a Piece of thick Linen Cloth, with an Eye to a Place in *Hippocrates, Lib. 2. de Morbis*, where the Word seems to be us'd in that Sense, and agreeably enough with the same Meaning in *Lib. de Artic.*

HEMIXESTON, *ἡμίξεστος*. A Measure half a *Xestes*; that is, a *Cotyle*; for a *Xestes* contains two *Cotyles*.

HENRICUS RUBENS. Vitriol calcin'd to Redness.

HEPAR, *ἥπαρ*. The Liver.

A critical Knowledge of the Structure of this Bowel is of very great Importance both in Physic and Surgery; for, without this, it is not possible to judge accurately, with respect to many, and those very terrible, Affections of this Organ.

The Liver is a large and pretty solid Mass, of a dark-red Colour, a little inclined to yellow, situated immediately under the Arch of the Diaphragm, partly in the Right Hypochondrium, which it fills almost entirely, and partly in the Epigastrium, between the Appendix Ensisformis and Spina Dorsi, and terminating commonly in the Left Hypochondrium, into which it sometimes runs a considerable Way. The Figure of the Liver is irregular, it being arched or convex on the upper Part, unequally concave on the lower, and very thick on the Right and back Sides. Towards the Left and anterior Sides, its Thickness decreases very much, and terminates there by a kind of Edge; and its Breadth is more extended from Right to Left, than from before backwards. The Liver may be divided into two Extremities, one great, the other small; two Edges, one anterior, the other posterior; two Sides, one superior and convex, which is smooth and polished, and proportioned to the Arch of the Diaphragm, and one inferior, concave and uneven, with several Eminences and Depressions. It may likewise be divided into two lateral Parts called Lobes; one of which is termed the Great or Right Lobe, the other, the Small, or Left Lobe. These two Lobes are distinguished above by a membranous Ligament; and below, very plainly, by a considerable Scissure lying in the same Direction with the superior Ligament. The Eminences on the concave Side of the Liver belong to the great Lobe. The principal Eminence is a sort of triangular or pyramidal Apophysis situated backward, near the great Scissure, which distinguishes the two Lobes. This triangular Eminence is termed *Lobulus Spigelii*, or, simply, the small Lobe of the Liver. One of its Angles advances a considerable Way toward the Middle of the lower Side of the great Lobe, and is lost there. This Angle I call the Root of the *Lobulus*. Toward the fore Side, there is another Eminence less prominent, but broader; and to this Eminence, and the former, the Antients gave the Name of *Portæ*. The Depressions on the concave or lower Side of the Liver, which deserve our Attention, are four in Number. The first is the Scissure which separates the two Lobes, which run across the concave Side, from the Eminences already mentioned to the anterior Edge, where it terminates by a Notch of different Depths, in different Subjects. This is termed the great Scissure of the Liver; and, in some Subjects, Part of it is an entire Tube. The second Depression is situated transversely between the two Eminences of the great Lobe, and filled by the Sinus of the *Vena Portæ*, so called by the Antients, because it lies between the Eminences of the same Name. The third Depression is backward, between the great Lobe, and *Lobulus Spigelii*; and the *Vena cava* passes through it. The fourth is a kind of Sulcus, between the *Lobulus*, and small Lobe of the Liver; which, in the Fœtus, serv'd to receive a venous Canal lost in Adults, in whom it appears only as a kind of Ligament. This Sulcus is, in some measure, a Continuation of the great Scissure, and joins the *Vena Cava*, by an acute Angle. Besides these four Depressions, there is one on the fore Part of the great Lobe, in which the Gall-bladder is lodged; and it sometimes runs as far as the Edge, where it forms a small Notch. We may likewise reckon, among these Depressions, a small Cavity in the posterior and lateral Part of the lower Side of the great Lobe, by which it rests on the Right Kidney; and likewise a superficial Cavity in the Left Lobe, where it runs over the Stomach. Lastly, on the posterior Edge of the Liver, there is a great Sinus common to both Lobes, which gives Passage to the Spina Dorsi, and Oesophagus, near the Place where the *Vena Cava* descends; and we sometimes meet with Scissures on both Sides of the Liver, which are not ordinary.

The convex Side of the Liver is commonly connected to the Diaphragm by three Ligaments, which are only Continuations of the membranous Lamina of the Peritonæum. One lies near the Edge of the Extremity of each Lobe, and one in the Middle; and they are accordingly termed Right, Middle, and Left Ligaments. There is a cellular Substance in the Duplicature of each, in which the Blood-vessels and Lymphatics run, and which sends off a kind of Lamina into the Substance of the Liver. The Right Ligament sometimes connects the great Lobe to the Cartilages of the false Ribs; and the Left Ligament, or that of the small Lobe, is often double, and advances toward the middle Ligament. This middle Ligament begins below, in the great Scissure of the Liver, near the Eminences called *Portæ*; and from thence passes through the anterior Notch, and over the convex Side of the Liver, at the

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Union of the two Lobes, and is fixed obliquely in the Diaphragm. It is likewise fixed along the upper and inner Part of the Vagina of the Right *Musculus Rectus* of the Abdomen, in such an oblique Manner, as to be nearer the Linea alba below than above. Besides these Ligaments, the great Lobe of the Liver is likewise connected to the Right Ala of the tendinous Portion of the Diaphragm, not by a Ligament, but by a broad and immediate Adhesion, without the Intervention of the Membrane of the Peritonæum, which is only folded quite round this Adhesion, to form the external Membrane of all the rest of the Body of the Liver. This broad Adhesion is commonly, though improperly, called *Ligamentum Coronarium*; but, in the first Place, it is not a Ligament, as has been already observed; and secondly, it is not circular, but oval, and very oblong: It is not on the upper Part of the convex Side of the Liver, but along the posterior Part of the great Lobe; the broad Extremity of the Adhesion lying near the Notch, and the pointed Extremity towards the Right Hypochondrium. The middle Ligament, called improperly *Ligamentum Hepatis Suspendorium*, contains in its Duplicature a thick white Rope, like a round Ligament, which was the Umbilical Vein in the Fœtus. Thus the lower Part represents a *Falx*, the convex Edge of which is sharp, and the other rounded: All these Ligaments serve to keep the Liver in its proper Situation, and to hinder it from inclining too much towards either Side: But we must not imagine, that any of them serve to suspend it, because it is sufficiently supported by the Stomach and Intestines, especially when they are filled. When the Stomach is empty, or when we fast longer than ordinary, it is a common Expression to say, The Stomach pinches us. As the Liver is not then sustained by the Stomach and Intestines, it descends by its own Weight, and, principally by means of the middle Ligament, pulls the Diaphragm along with it. It is in that Place, therefore, that we have this uneasy Sensation, and not at the superior Orifice of the Stomach, as is commonly believed. The Right or great Lobe of the Liver, which lies in the Right Hypochondrium, rests on the Right Kidney, by a small superficial Depression above-mentioned; and it likewise covers a Portion of the Colon, and the Pylorus. About two Thirds of the small or Left Lobe lie in the middle of the Epigastrium, and the remaining third Part advances over the Stomach, towards the Left Hypochondrium: This small Lobe is situated almost horizontally; the great Lobe is very much inclined, and its thick Extremity runs down almost in a perpendicular Direction to the Right Kidney, on which it lies in the manner already said. This Observation is of Use to distinguish the different Parts of the Liver, in Wounds, and Chirurgical Operations. It may likewise serve to direct us in examining a Liver taken out of the Body; the Situation of which may be otherwise very easily mistaken, especially that of the Parts of the concave Side. The Passage of the *Vena Cava*, between the Body of the great Lobe, and the *Lobulus Spigelii*, may likewise serve for a Rule, in placing a detach'd Liver in its true Situation.

The Liver is composed of several kinds of Vessels, the Ramifications of which are multiplied in an astonishing manner, and form, by the Intertexture of their capillary Extremities, an innumerable Collection of small, pulpy, friable Corpuscles, which are looked upon to be so many Organs designed to separate from the Mass of Blood a particular Fluid termed the Bile. The greatest Part of these Vessels, from one End to the other, is included in a membranous Vagina called *Capsula Vena Portæ*, or *Capsula Glissoni*, from an English Author who first described it particularly. The Vessel which carries the Blood to the Liver, is called the *Vena Portæ*, for the Reason already given. In the Description of the Veins it is observed, that the *Vena Portæ* might be considered as two large Veins, the Trunks of which are joined endwise, and send out Branches and Ramifications in opposite Directions to each other; that one of these Veins is ramified in the Liver, the other lying without the Liver, and sending its Branches and Ramifications to the Viscera of the Abdomen; and lastly, that the first of these large Veins may be termed *Vena Portæ Hepatica*, the other *Vena Portæ Ventralis*.

The particular Trunk of the *Vena Portæ Hepatica* is situated transversely between the broad anterior Eminence of the great Lobe of the Liver, and the Root of the *Lobulus*, in a particular Scissure, and forms what is called the Sinus of the *Vena Portæ*. From this Sinus five principal Branches go out, which are afterwards divided into Millions of Ramifications, through the whole Substance of the Liver. At this Place the *Vena Portæ* lays down the common Office of a Vein, and becomes a kind of Artery, as it enters, and is again ramified in the Liver. The Extremities of all these Ramifications of the Trunk of the *Vena Portæ Hepatica* end in the pulpy, friable Corpuscles, which seem to be thick, villous Folliculi, when examined through a Microscope in clear Water.

It is in these Folliculi that the Bile is secreted, and it is immediately collected in the same Number of Extremities of another kind of Vessels, which unite by numerous Ramifications into one common Trunk. These Ramifications are termed *Pori Bilaris*, and the Trunk, *Ductus Hepaticus*; and the Ramifications

mifications of these two Kinds of Vessels are invested together, by the Capsula of the Vena Portæ.

The Blood, depriv'd of this bilious Fluid, is reconvey'd to the Heart, by a great Number of venous Ramifications, which afterwards unite into three principal Branches, besides others which are less considerable, that terminate in the Vena Cava, and are called by the Name of Venæ Hepaticæ: The capillary Extremities of the Ramifications of the Vena Cava join those of the Vena Portæ, and accompany them thro' the Liver; and, yet, the great Branches of both Veins intersect each other in several Places. When we cut the Liver in Slices, it is easy to distinguish, in each Slice, the Ramifications of the Vena Cava from those of the Vena Portæ; the first being thinnest and largest, and adhering closest to the Substance of the Liver; whereas those of the Vena Portæ, which are invested by the cellular Capsula, appear to be a little rumpled, when empty, because the cellular Capsula subsides, when it is cut; but the other Veins remain uniformly open, their Sides adhering to the Substance of the Liver.

The Liver receives from the coeliac Artery a particular Branch, term'd *Arteria Hepatica*, which, being very small, when compared with the Bulk of that Bowel, seems design'd only for the Nourishment thereof, and not for the Secretion of the Bile. The *Plexus Hepaticus*, form'd by the *Nervi Sympathetici maximi & medii*, furnishes a great Number of Nerves to the Substance of the Liver. The Ramifications of the Artery, and Nervous Plexus, are included in the cellular Capsula, together with those of the *Vena Portæ*, and *Pori Biliarii*: The Pulsion of this Artery has been, by some Anatomists, taken for that of the Capsula; and, by this, they have endeavour'd to explain the arterial Function of the Vena Portæ: But they have not consider'd, that the Blood in this Vein does not require to be pumped forward; because so swift a Motion would have been prejudicial to the Secretion of the fine Oil of the Bile; for which a slow and almost insensible Motion is necessary. The Liver is cover'd exteriorly by a particular Membrane or Coat, which is a Continuation of the Peritonæum: There is likewise a membranous or filamentary Substance, which runs thro' this whole Bowel, and connects the Ramifications and Extremities of all its Vessels to each other: This Substance seems to be a complicated Production of the Capsula of the Vena Portæ, and of the external Membrane of the Liver. The outer Surface of this Coat is very smooth, but its inner Surface is uneven, being made up of a great Number of thin membranous Laminæ, between which we observe, very distinctly, numerous lymphatic Vessels on both the convex and concave Sides of the Liver; but it is more difficult to trace those which accompany the filamentary Substance thro' that Bowel. I have already observ'd, that the Substance of the Liver is principally made up of pulpy friable Corpuscles, each of which is bounded, and, in a manner, surrounded, by a particular Expansion of the *Capsula Glissoni*; and all these Expansions are connected by common Septa, in some measure resembling a Honey-comb: These Corpuscles have several Angles, especially in the inner Surface of the Liver; but, near the Surface, they are rais'd in the Form of small Tubercles: Their pulpy Texture appears like radiated Tufts, a small void Space being left in the middle of each. If we blow thro' a Pipe into the Vena Portæ, Vena Cava, Arteria Hepatica, or Trunk of the *Pori Biliarii*, but especially through the two Veins, we observe the Liver to swell, and the Corpuscles, near the Surface, are rais'd, and become more sensible: If we blow with much Force, we burst these Corpuscles; and the Air, getting between them and the external Membrane, raises it from the Substance of the Liver, in Blisters.

The *Ductus Hepaticus*, or Trunk of the *Pori Biliarii*, having run a little Way, joins another Canal, call'd *Ductus Cysticus* or *Vesicularis*, because it comes from the Vesicula Fellea: These two united Ducts form a common Trunk, nam'd *Ductus communis Cholidochus*, because it conveys the Bile: This Duct, having reached the Incurvation of the Duodenum, insinuates itself through the Coats of that Intestine, and opens into the Cavity thereof, not by a round Papilla, but by an oblong Orifice, rounded at the upper Part, and contracted at the lower, like the Spout of an Ewer, or like a common Tooth-picker: The Edges of this Orifice are rais'd, broad, and plaited; as we may see, by making this Portion of the Duodenum swim in clear Water: At the Entry of this Orifice, we see another smaller Opening, distinct from it, which is the Orifice of the *Ductus Pancreaticus*.

The Gall-bladder is a kind of small Bag, shaped like a Pear, that is, narrow at one End, and wide at the other. The wide Extremity is term'd the Fundus, or Bottom; the narrow Extremity, the Neck; and the middle Portion, the Body. About One-third of the Body of the Gall-bladder lies in a Depression on the concave Side of the Liver, from the Trunk or Sinus of the Vena Portæ, where the Neck is situated to the anterior Edge of the great Lobe, a little towards the Right Side, where the Bottom is placed; and, in some Subjects, it advances beyond the Edge. When, therefore, we stand, the Gall-bladder lies in a Plane, inclined a little from behind, forward: When we lie upon

the Back, it is almost inverted: When we lie on the Right Side, the Bottom is turned downward; and it is turned upward when we lie on the Left Side; and these Situations vary, according to the different Degrees of each Posture. The Gall-bladder is compos'd of several Coats; the outermost of which is a Continuation of that which invests the Liver, and, consequently, of the Peritonæum: The second Coat is fleshy, and made up of two Strata, one longitudinal, and the other transverse; the Fibres of which have nearly the same irregular Direction with those of the Stomach; and this Disposition of the Fibres of these Viscera is owing to the Inequality of their Diameters in the several Parts of them, and to their Incurvation: These two Coats are, connected by a cellular Substance, continued, between the Body of the Gall-bladder and the Liver, all the Way to a whitish Stratum, which is look'd upon as the third Coat to the Gall-bladder, answering to the *Tunica Nervosa* of the Intestines: The innermost or fourth Coat has, on the Inside, a great Number of reticular Folds, filled with small Lacunæ, like perforated Papillæ, especially near the Neck of the Gall-bladder, where the Folds are longitudinal, and afterwards form a kind of small rough Pylorus: These Lacunæ are looked upon to be Glands. That Side of the Body of the Gall-bladder, which lies next the Liver, is connected to that Bowel by a vast Number of Filaments, which run a great Way into the Substance of the Liver; and, among these Filaments, there are some Ducts which form a Communication between the *Pori Biliarii* and Gall-bladder: These Ducts were observ'd in Brutes long ago, and they have been very lately discover'd in Men likewise: They are most numerous near the Neck of the Bladder, and they are call'd *Ductus Cyst-hepatici*, or *Hepatico-cystici*. The Neck of the Gall-bladder is form'd by the Contraction of the small Extremity; and this Neck, bending afterwards in a particular manner, produces a narrow Canal, nam'd *Ductus Cysticus*: This Incurvation represents, in some measure, the Head of a Bird, of which the Cystic Duct, by the gradual Diminution of its Diameter, expresses the Beak: This cannot be seen when the Liver is out of its proper Situation; and even *in Situ* it is but imperfectly seen, when, in order to view the concave Side, the Liver is rais'd, and thrust too much against the Diaphragm; for, by thus inverting the Liver, the Curvature is disorder'd, and we see two in the Place of one. To see this Curvature in its true natural Situation, the Liver is to be rais'd but very little, and the Duodenum left untouched; then we must stoop, and look under the Liver, without disordering any thing. This Incurvation may be of Use to hinder too precipitate a Discharge of the Bile contain'd in the Bladder, which some Situations of the Body might occasion. The Neck of the Vesicula is, nearly, of the same Structure with the other Parts; it has, on the Inside, several reticular Wrinkles, and some Folds, which appear like Fragments of a sort of Valvulæ conniventes, situated very near each other, from the Neck to the Contraction of the Cystic Duct: The first of these Folds is pretty broad and large, and almost circular; the next is more oblique, and smaller in Size; and the rest diminish in the same manner: Taken all together, they form a kind of spiral Ascent, which may be seen thro' the Neck, on the Outside, where it sometimes appears like a Screw, especially when the Neck is filled with any Fluid. This Observation is owing to Heister. By slitting the Neck and Duct, we see all these Folds very distinctly, especially when we examine them in clear Water. When they are view'd in any other Manner, they easily deceive us, being mistaken for true Valves, because of their transverse Situation: They may, however, in some measure, supply the Place of Valves, by hindering the Bile from running too fast into the Duodenum; and the Contents of the Duodenum from entering this Duct. The internal Surface of all these biliary Ducts, that is, of the *Ductus Hepaticus*, *Cysticus*, and *Cholidochus*, being examin'd thro' a Microscope, in clear Water, appears to be, nearly, of the same Structure, thro' their whole Extent. The Cystic and Hepatic Ducts do not, in their ordinary and natural Situation, represent the Capital Y of the Greeks, where they form the *Ductus Cholidochus*: After the Incurvation of the Neck of the Bladder, these two Ducts run very near each other, and they appear to be separated, only when the Liver is rais'd up, in order to view them. The same Confusion of these Parts happens, also, in an inverted Liver, when taken out of the Body; for then the Body of the Liver subsides, and is flatten'd, and thereby separates the Ducts; whereas, in its true Situation, it is very much incurvated, and the Ducts are very near each other. The *Ductus Cholidochus* appears rather to be a Continuation of the *Ductus Cysticus*, than the common Trunk of that and the *Ductus Hepaticus*; for I have observ'd, that this last Duct runs for some Space within the Sides of the former, before it opens into the Cavity, much in the same manner as the *Ductus Cholidochus* passes into the Duodenum. I have likewise observ'd, at the Opening of the Hepatic into the Cystic Duct, a small loose valvular Membrane, which may hinder the Bile from returning out of the *Ductus Cholidochus* into the *Hepaticus*. The Bile, which passes thro' the *Ductus Hepaticus* into the *Cholidochus*, may be call'd Hepatic; and that which is collect'd in the Gall-bladder, may be term'd Cystic: The Hepatic Bile flows continually

thro' the *Ductus Cholidochus* into the *Duodenum*; whereas the Cystic Bile flows only by reason of Plenitude, or Compression.

The Trunk of the *Vena Portæ Ventralis* terminates between the Lobulus and the opposite Part of the great Lobe; and there joins the Trunk of the *Vena Portæ Hepatica*, in the transverse Sinus of the Liver, between the Right Extremity and the Middle of that Sinus. The Umbilical Ligament, and, consequently, the Umbilical Vein in the Fœtus, joins the Trunk of the *Vena Portæ Hepatica*, toward the Left Extremity of the transverse Sinus of the Liver. The *Canalis Venosus* in Man is not exactly opposite to the Umbilical Vein, but a little to the Right-hand; and, therefore, these three Vessels lie in such a Direction as to form two opposite Angles, resembling those of the Handle of a Wheel, or of a Spit. In the Fœtus, therefore, the Blood which comes from the Umbilical Vein, does not run directly thro' that contained in the *Vena Portæ Hepatica* in the Sinus, and, from thence, to the *Canalis Venosus*; but is obliged to turn from Left to Right, and so to mix with the Blood in the *Vena Portæ*, before it enters that Canal, which opens into the Trunk of one of the great Hepatic Veins of the *Vena Cava*, near the Diaphragm. The Hepatic *Vena Portæ* gives off, commonly, five large Branches into the Liver; three from its Right Extremity into the great Lobe; and two from its Left Extremity into the small Lobe; and, from the Interstice between these, a small Branch goes directly to the Middle of the convex Side of the Liver. The Hepatic Veins are commonly three large Branches of the Trunk of the *Vena Cava* inferior, which go out from it by one common Opening, especially two of them; and, then separating, they enter the Substance of the Liver, intersecting the Branches of the Hepatic *Vena Portæ*; and are ramified, in all Directions, in the manner already explain'd. The inferior Portion of the Opening of these Veins into the *Vena Cava* forms a kind of semilunar Valve: Below these Hepatic Veins, the *Vena Cava* inferior sends off, in its Passage by the Liver, several other small Hepatic Veins immediately from the Trunk, which seem to have the same relation to the Hepatic Artery, as the great Veins to the *Vena Portæ*. The Passage of the *Vena Cava* is thro' the Right Portion of the posterior Sinus of the Liver, and, consequently, on the Side of the great Lobe, which is hollow'd, at this Place, sufficiently to give Passage to the Vein, of which it surrounds about Three-fourths, sometimes more, and sometimes the Whole: This Passage answers to the Interstice between the Lobulus and the rest of the great Lobe; and its Direction is, in the natural State, from above, downward, and a little from Right to Left; but when the Liver is view'd out of the Body, and inverted, it appears very oblique.

The Trunk of the great *Vena Portæ*, the Hepatic Arteries, the *Ductus Hepaticus*, or Trunk of the *Pori Bilarii*, and Nerves of the *Plexus Hepaticus*, form, all together, a large Bundle, before they enter the Liver; the Trunk of the Hepatic *Vena Portæ* is in the Middle of this Bundle; the Hepatic Arteries lie on the Right and Left Side of this Trunk; the Nerves surround it on all Sides, and they communicate with the *Plexus Mesentericus superior*: Afterwards the first Branches of the Arteries, Nerves, and *Pori Bilarii*, leave the Trunk of the great Vein, and join, in the same manner, the Trunk of the small or Hepatic *Vena Portæ*, and its Ramifications in the *Capsula Glissoni*, explain'd above. All these Branches of the *Vena Portæ*, and of the Arteries, Nerves, and *Pori Bilarii*, accompany each other, by Ramifications thro' the whole Substance of the Liver, forming every-where small Fasciculi, in the same manner as the large Bundle is form'd by their Trunks. Each Branch of the *Vena Portæ*, Artery, Nerve, and *Porus Bilarius*, has a proper Vagina; and all the four have a common Vagina, distinguish'd from the former by cellular Septa, which are only Continuations of the Vagina of both Kinds. The convex Side of the common cellular Vagina is connected quite round to the Substance of the Liver, by numerous Filaments, which arise from it, and which form the cellular Substance found between the glandular Corpuscles: The concave Side produces the cellular Septa above mention'd. In this common Vagina the Vessels, Ducts, and Nerves, are disposed in such a manner, as that the Branches of the *Vena Portæ* principally fill the Cavity of it, and it is in a lateral Situation; the arterial Branch and *Porus Bilarius* lie together, on the Side of the Vein, and the Nerve is divided into several Filaments, which run in between the Vessels and Ducts, and chiefly accompany the Artery and *Porus Bilarius*; the *Vena Portæ* having by much the fewest.

The Liver is the principal Organ for the Secretion of the Bile. The Villi of that immense Number of glandular Cells, of which it is compos'd, filtrate continually from the Blood of the *Vena Portæ* small Drops of Bile, which, afterwards, insinuate themselves into the *Pori Bilarii*, and are, in part, lodged in the Gall-bladder, and, in part, run directly into the *Duodenum*, in the Manner already explain'd, in describing the Biliary Ducts.

The Spleen, Omentum, Appendices Epiploicæ, Adipose Strata of the Mesentery, and those of the great Intestines, and even the Pancreas, with the whole Series of Glands in the intestinal Canal, seem to contribute to the Formation of the Bile, as so many auxiliary, or, rather, preparatory Organs; but each of them in a different Way. It appears, (1.) That the venous Blood,

which returns from all the intestinal Glands, and from the Pancreas, has left a great Portion of its Serum. (2.) That the Blood, which returns from the Spleen, has undergone a certain Change, by its Course being mechanically retarded; and, likewise, that its Texture is alter'd, by the Action of the numerous Nerves sent thither by the Plexus Splenicus. (3.) That the Blood which returns from the Omenta, Appendices Epiploicæ, and from the Strata, and other Collections of Fat, is loaded with Oil. These three Kinds of venous Blood meet in the Trunk of the *Vena Portæ Ventralis*, where they are mixed together; and from thence they enter the transverse Sinus, or Trunk of the *Vena Portæ Hepatica*: In this Sinus they are still more intimately mixed, as in a kind of Lake, and become one uniform Mass of Blood, which being forced into the Branches of the *Vena Portæ Hepatica*, only by the supervening Blood from the other *Vena Portæ*, and by the lateral Pulsations of the Ramifications of the Hepatic Artery, its Course must be very slow: The Secretion of the Bile depends partly on this slow Motion, and partly on these external Impulses.

The vesicular Bile appears to be more exalted than that in the Hepatic Duct; and, by meeting in the *Ductus Cholidochus*, they seem to compose a third Kind of Bile, which, without the Cystic or Vesicular Bile, would, perhaps, be too mild; and too acrid, without the Hepatic: This Bile mixes, in the *Duodenum*, with the pancreatic Juice, and with that of the intestinal Glands; and from this Mixture a Fluid results, which is proper to separate the chylous Matter from the gross and useless Part of the alimentary Pulp, as it comes from the Stomach.

See BILIS.

See, also, *Tab. XIII. Tab. XIV. Fig. 1. and 3. and Tab. XV.* and the Explication of all these Figures.

From this Structure of the Liver, duly consider'd, it will be easy to understand the Distempers to which this Organ is subjected in a particular Manner: The first, and most acute, of these is an Inflammation, called *Hepatitis*; which, perhaps, occurs more frequently than is generally apprehended; but, however, not so often as one would be subject to imagine, from the Conformation of the Part, unless it were consider'd, that the Hepatic Artery is not very large, and, therefore, cannot convey to the Liver a great Quantity of Blood; and that the Force of the Blood circulating thro' the Ramifications of the *Vena Portæ*, is not so considerable as to subject this Organ very much to Inflammations.

An Inflammation of the Liver is seated in the Extremities of the Ramifications of the *Vena Portæ*, or Hepatic Artery; and it is evident, from the Disposition of these Vessels, that an Inflammation in either of them must soon be succeeded by one in the other.

The antecedent Causes of both these Species of Inflammation are the same as the general Causes of Inflammations, (see INFLAMMATIO) determined to this Organ. But there are other Causes, which are local, and relate more immediately to the particular Part: Thus an extraordinary Degree of Fatness, in the Omentum, may raise an Inflammation in the Liver, not only by compressing it, but this Fat may also dissolve by Exercise, Motion, and Heat, and, being absorb'd by the Vessels, and convey'd to the Liver in too large Quantities, may there cause an Inflammation.

This Effect may, also, be produc'd by an atrabilarious Temperament of the Blood, or Bile; for when such a Temperament is induced by an intimate Union of the Earth and Oil, and a Dissipation of the spirituous and aqueous Particles of the Blood, or Bile, either of these Humours become subject to form Concretions and Stagnations, in the minute Extremities of the Branches of the Hepatic Artery, or *Vena Portæ*.

The Liver, also, suffers from Disorders in remote Parts of the Body; for if acrimonious Pus, Ichor, or a scorbutic Sanies, is deposited in any other Organ or Member, these, upon the Accession of Heat, a Fever, violent Motion, an improper Diet, ill-applied Medicines, or Poisons, are colligated, moved, return'd into the Circulation, and, by this means, convey'd to, and deposited in, the Liver.

Besides these Causes, the Bile, when pinguious, acrimonious, and exalted, or what the Ancients called *adust*, if put in Motion by adequate Causes; a Stone, chalky Concretions, a Scirrhus, Callus, Steatoma, Abscess, or Worms, occupying any Part of the Liver, Gall-bladder, or Biliary Ducts, upon the Accession of any Cause sufficient to put them in Motion, by compressing the small Ramifications of the Hepatic Artery, and *Vena Portæ*, excite therein an Inflammation.

Cold, also, applied to the Liver when, by any means, overheated, contracts the Vessels, inspissates the Fluids, and thus produces an immediate Inflammation; and this Cold has much the same Effect, whether it is apply'd by means of the Air, Liquors drank, or Bathing.

An Abstinence from diluting Liquors, during excessive Motion, great Heat, and profuse Sweating, will, also, cause an Inflammation of the Liver; for, when the Blood is depriv'd of its aqueous Parts, without a fresh Supply, it becomes thick, and, consequently, inclined to stagnate in the capillary Vessels. Abstinence, likewise, especially from Drink, in burning Fevers, will, for

for the same Reason, produce a like Effect: And the same Disorder may be brought on by violent Passions and Perturbations of the Mind, which induce spasmodic Strictures in the Vessels of the Liver, and an irregular Circulation; as it frequently happens, in some Degree, during Hysterical Disorders, as *Sydenham* remarks.

Among the Causes of an Inflammation in this Organ, excessive Motion, excited by Emetics, must, farther, be reckon'd as one; for, by these, some Vessels in the Liver may be ruptur'd; or the Blood, contain'd in all the abdominal Viscera, may be impel'd with Violence into the *Vena Portæ*, and thence being convey'd, in too large Quantities, into the Liver, or too forcibly, or both, in either Case excite an Inflammation.

Lastly, inveterate hypochondriac Disorders will produce Inflammations of the Liver, for Reasons given under the Article *MELANCHOLIA*.

The Effects of Inflammations of the Liver, arising from any of these Causes above specify'd, are various, and determin'd by the various preceding Dispositions of the Liver, the Variety of the Matter which is mov'd and fix'd upon the Liver, the material Cause of the Inflammation, and the different Causes which excite this Matter to Action, and impel it upon the Liver.

When the Case is only a simple Inflammation, the small Vessels are obstructed; and, in consequence of this, the Fluids, which ought to circulate through them, are stop'd in the Part: Hence a Tumor arises, which compresses the adjacent Parts, and, by that means, propagates the Tumor to them; thus it proceeds, till almost the whole Organ is affected, which then compresses the Stomach, and is again compress'd by the Stomach when full; which Compression is attended with Pain in the inflam'd Liver. It also affects the Diaphragm, and sometimes excites Pain and Inflammation in that Part by compressing it, or account of its near Situation. Besides, all the Blood receiv'd by the *cœliac* Artery, and the two mesenteric Arteries, is intercepted and stop'd at the Liver; and, in consequence of this, the Circulation of all the venous, arterial, and lymphatic Fluids, in the principal Viscera of the Abdomen, is utterly obstructed; and the Generation, Secretion, Excretion, and Circulation of the Bile, is entirely hinder'd. Hence a Jaundice is produc'd, with all its Consequences; Putrefactions of the abdominal Viscera, together with their contain'd Fluids; and a great Number of ill Consequences, which are obvious from the Uses of the Bile, (see *BILIS*) and the Functions of the Parts thus destroy'd.

Such an Inflammation of the Liver terminates in Health, some other Disease, or Death.

It terminates in Health, either spontaneously, by the Force of Nature, or by the Assistance of Art.

Nature performs the Cure, either by a salutary Resolution, or by a due Concoction and Excretion of the morbid Matter.

Resolution is brought about, if the Disease is recent, the Matter which forms it mild, and the Case, attended with the other Circumstances mention'd under the Article *INFLAMMATIO*, as requisite to a benign Resolution. In this Case, it will be of great Importance towards the Cure, to promote the Work begun by Nature, by diluting, resolving, and gently moving the obstructing Matter by Epithems, Drinks, and Clysters, which are moistening, lenient, emollient, diluting, solvent, abstergent, gently stimulating, and saponaceous; proper Materials and Forms for which are abundantly specify'd under the Articles *FIBRA*, *LENTOR*, *ALCALI*, and *OBSTRUCTIO*.

A Cure is brought about by a Concoction, and subsequent Excretion, of the morbid Matter; first, if, during the Disease, evident from the Signs above-mention'd, a bilious Diarrhoea, mix'd with a small Quantity of Blood, comes on before the fourth Day, which carries off the obstructing Matter, before concocted, and render'd moveable. But great Care must be taken in Practice, not to mistake this salutary Diarrhoea for a morbid Dysentery.

Secondly, If a large Quantity of acrid, thick, red Urine, with a whitish Sediment, is discharg'd before the fourth Day, and continues for a long time.

Thirdly, If, before any Signs of Suppuration appear, a slight Pain is perceiv'd in the Spleen.

Fourthly, If a copious Hæmorrhage happens from the Right Nostril.

Fifthly, If a plentiful, universal, yellowish, and somewhat viscid Sweat, breaks out before the fourth Day, continues long, and is attended with a Mitigation of the Symptoms.

A Physician should always watch the spontaneous Motions of Nature, and, according to these, regulate his Conduct towards the Patient. Thus, in the first Case, that of a bilious Diarrhoea, all those Things should be administer'd, which are capable of diluting, resolving, moving, absterging, gently expelling, and particularly such as resist a bilious Putrefaction; and these must be exhibited in Epithems, Clysters, Fomentations, Drinks, Diet, and Medicines. Proper Materials and Forms for these are specify'd under the Articles *FIBRA* and *ALCALI*. By these the salutary Operations of Nature are promoted.

In the second Case, that is, a critical Discharge by Urine, soft, relaxing, and aperient Fomentations, are to be apply'd to the Region of the Kidneys, the Perinæum, and Hypogastrium: Mean time mild aperient Diuretics are to be exhibited; the Air of the Room is to be kept somewhat cool; Sweats, and all other Evacuations, are to be avoided; and mild diuretic Clysters are to be administer'd, in order to promote the critical Excretion begun by Nature.

In the third Case, that of a Pain in the Spleen, the same Methods are to be pursued as in the first and second; but the Fomentations must be apply'd directly to the Region of the Spleen, and all the Tract betwixt that and the Liver.

In the fourth Case, that of an Hæmorrhage from the Nose, the Nostrils must be fomented, both internally and externally, with warm emollient Decoctions, in order to promote the Bleeding till the Symptoms are alleviated. But if the Hæmorrhage should be too profuse, it must be gently restrain'd by the Application of Styptics, and a subastringent Diet; but this must not be attempted too soon.

A mild Styptic useful on such Occasions:

Take of Roch-alum, one Dram; and of distil'd Plantain-water, one Ounce: Dissolve together, and apply on Tents to the Nostrils.

A stronger Styptic for the same Purpose may be prepar'd thus:

Take of the Sugar of Lead, one Dram; and of distil'd Rose-water, one Ounce: Mix together, and use in the same Manner with the former.

Another still stronger than the former two may be prepar'd thus:

Take of common Vitriol, one Dram; and of distil'd Rose-water, six Drams: Mix together for the like Purposes.

In the fifth Case, that is, a critical Evacuation by Sweat, a copious Use of diluting and abstergent Decoctions is requir'd; the Materials and Forms of which are specify'd under that Part of the Article *FIBRA*, where we have treated of Diseases proceeding from too great a Rigidity of the Fibres.

In all these Cases, particular Care must be taken to free the Liver entirely from all the morbid Matter stagnating therein; otherwise its Removal will afterwards be difficult, and it may produce Indurations of this Organ, and all its Consequences. And thus is the first and most mild Species of Jaundice to be treated.

If the Inflammation is recent, extremely violent, and without any Signs or Hopes of Resolution, Concoction, and Excretions, the Case must be treated with the same Cautions and Remedies, and the same Method of Cure must be pursued, as is directed for a *Pleurisy*, and *Paraphrenitis*, (which see) and other similar inflammatory Disorders; except that, in the Case before us, all antiphlogistic Fluids, which promote the Excretions by Stools, when either drank, or injected by way of Clyster, are particularly serviceable. The Materials proper in Cases of this Nature, are Garden sorrel, Meadow-sorrel, and French Sorrel, Wood-sorrel, Wild Orache, *English Mercury*, Gum Succory, Garden and Wild Succory, Dandelion, Endive, Fumitory, Hawk-weed, Lettuce, sharp-pointed Dock, Purslain, Syrup of Borrage, in a Dose of two Ounces; Syrup of Succory, with Rhubarb, three Ounces; Syrup of Fumitory, two Ounces; and Syrup of the Five aperient Roots, two Ounces.

Take of Tamarinds, one Ounce; of sweet Plums, three Ounces; of ston'd Raisins, and Currants, each two Ounces; of the Flowers of Dandelion, and Wild Succory, each one Ounce; of the Root of Viper's-grass, four Ounces. Boil in two Pints of Water, for a Quarter of an Hour; and mix with the Liquor, of *Sal Polychresten*, one Dram; of Syrup of Succory, with Rhubarb, an Ounce and an half. Let the Patient drink an Ounce of this every Half-hour, using, at the same time, a proper Regimen, till his Body is render'd soluble.

Or,

Take of the Syrup of Succory, with Rhubarb, an Ounce and an half; of *Sal Prunellæ*, one Dram; of the distil'd Waters of Succory, and Fumitory, each two Ounces: Mix all together, and exhibit a Spoonful every Half-hour.

When the yellow icteritious Colour of the Eyes, Face, Urine, and Excrements, together with all the Symptoms taken notice of above as Diagnostics of this Distemper, entirely disappear, we know that the Cure is completed.

Hence

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Hence the Origin, Nature, Effects, and Cure of the second and more severe Species of Jaundice may be understood.

But if, in an Inflammation of the Liver, the above-mention'd Remedies should not be used, should be apply'd too late, or without Effect, or if the Cause of the Inflammation be very considerable, a Suppuration of the Liver will ensue, as it happens in Inflammations of other Parts; but, with this Difference, that in the Liver, on account of the large Quantity of Blood and bilious Fluids stagnating therein, good Pus is very seldom form'd, unless in very small Abscesses, and those in the external Parts of this Organ; but, instead of this, a fatal Putrefaction is generally induced.

This Suppuration is prognosticated, first, By the preceding Signs of an Inflammation in this Organ, as an inflammatory Pain, a yellow Colour in the Eyes, Skin, Urine, and Excrements, and an acute Fever.

Secondly, When there is no Resolution nor Excretion of the concocted morbid Matter, and the Methods of Cure above-mention'd have not been put in Practice, there is Reason to believe, that a Suppuration will ensue.

Thirdly, A Change of the Symptoms, that is, a Remission of the Pain, with subsequent Pulsation and Shiverings, whilst the icterical Colour remains, are certain Presages of a Suppuration.

Fourthly, Another suspicious Sign of Suppuration is, the Duration of an Inflammation not of the most violent Kind, for more than three Days.

We are certain, that a Suppuration in this Organ has actually happen'd, first, If the four Circumstances just above-mention'd have preceded.

Secondly, If a Tumor is perceiv'd in the Region of the Liver.

Thirdly, If the Symptoms are so alter'd, that, instead of a Pain, a Sensation of Weight is perceiv'd in the same Place, the icteritious Colour still remaining.

Fourthly, If the Patient is affected with great Weakness, a hectic Fever, and excessive Thirst.

The Consequence of such an Apostematation is,

First, That the Liver is entirely corroded and consum'd: Or,

Secondly, That the Abscess breaks, and discharges into the Cavity of the Abdomen a sanious Sort of Pus: Or,

Thirdly, That the same Sort of Pus passes through the biliary Ducts into the Intestines: Or,

Fourthly, That it passes through the Ramifications of the *Vena Cava* into the Blood.

Fifthly, The Tumor may adhere to the *Peritonæum*, and form an external Abscess of the Liver, evident to the Sight and Touch.

In the first Case, that is, when the Liver is consum'd, the Patient dies, after struggling, for a long time, with a slow icterical Consumption, a perpetual slow Fever, an intolerable Thirst, excessive Weakness, inexpressible Anxiety, a Discharge of black Urine, a *Tympanitis*, and a sanious and extremely fetid Diarrhea. This is another Species of Jaundice, which admits of no Cure, and can even scarcely be palliated.

In the second Case, that is, when the Abscess breaks, and discharges its Contents into the Cavity of the Abdomen, the Collection of Matter in this Cavity is perpetually increased by a fresh Supply from the Liver; and all the Fluids of the Body, together with the Aliment taken in, is continually converted into fresh Pus, and all the abdominal Viscera contract Putrefaction. Hence an *Asites* resembling a *Tympanitis*, and Death, preceded by a slow terrible Consumption, and all its troublesome Symptoms. This Species of Jaundice resembles the preceding, and cannot be cur'd by any Art whatever.

In the third Case, that is, when the suppurated Matter and Ichor corrode the Extremities of the biliary Ducts, and pass through their larger Ramifications into the Intestines, as they happen to pass upwards or downwards, they either excite Discharges by Vomits, which are fetid, putrid, purulent, and ichorous, of a white, cineritious, brown, yellow, or dark Colour; or else Excretions by Stool, of the same Nature, attended with excessive Weakness: These are called Colliquative Fluxes, and are soon mortal. This is another Termination of a Jaundice, which is much to be dreaded.

In the Cases immediately above-mention'd, the only Hopes, even of a palliative Relief, seem to be placed in acid or acescent Substances, exhibited by way of Medicine or Aliment, as these powerfully resist Putrefaction.

In the fourth Case, that is, if the Pus and Ichor corrode the Extremities of the *Vena Cava*, and pass through its larger Ramifications into the Mass of Blood, and are mix'd therewith, the most formidable Symptoms are excited, which soon terminate in Death; as enormous and frequent Faintings; excessive Weakness; a Pulse in every respect bad; a general Perturbation of all the Functions.

In this Case there is no Method of Cure which can be relied on: Some Relief, however, may be expected from such Remedies as maintain the Strength, resist Putrefaction, and increase Humidity. Such are the following.

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In the Summer-time:

Take of ripe Mulberries, Currans, Elder-berries, Cherries, and Barberries, each four Ounces: Bruise them, express the Juice, and boil it; then, with every Ounce of it, mix one Yolk of an Egg; of Citron-juice, one Dram; of *Rhenish* Wine, one Ounce; of toasted Bread, grated down, a sufficient Quantity; and of Sugar, a sufficient Quantity: Mix up for a Draught.

In the Winter-time:

Take of the Rob of the above-mentioned Berries, one Ounce, of an *Elæosaccharum* of Oil of Nutmeg, five Grains; of distilled Citron-water, two Ounces; of *Rhenish* Wine, one Ounce; one Yolk of an Egg; and of Sugar, a sufficient Quantity: Express for Use, adding a little toasted Bread.

The same Intention is also answer'd by the following Preparation.

Take of the best and recent Leaves and Stalks of Lettuce, Endive, Dandelion, and Purslain, each six Ounces; of Sorrel, three Ounces: These are to be well cleans'd and wash'd; then, boiling them gently, in a close Vessel, with Flesh-broth, the Patient is to eat them with a little Butter, Salt, and Pepper.

In the last Case, that of an external Abscess, the Tumor must be open'd either by burning crude Flax upon it, by the actual or potential Cautery, or by Incision; and the Wound must be treated with corrolive and suppurative Applications, till it is open'd as far as the Abscess. If, then, the Pus discharg'd from this Abscess is white, of an equable and even Consistence, and communicates no Colour to the Probe it touches, there are Hopes of a Cure, by the Treatment due to other Abscesses when open'd.

But if a yellow, brown, livid, or black, fetid Ichor is discharg'd, which tinges the Probe, apply'd to it, of various Colours, and resembles the Dregs of Oil, the Patient will be destroy'd by a gradual Corrosion and Consumption of the Liver, after being long afflicted with many of the Symptoms mention'd above. In this Case antiseptic Medicines, which powerfully resist Putrefaction, may somewhat palliate, but cannot cure.

But if an Inflammation of the Liver is attended with the Circumstances mention'd under the Article INFLAMMATIO, as requisite to produce a *Scirrhus*, the Inflammation will terminate in a *Scirrhus*; which, in time, growing hard, and increasing in Bulk, injures the Place where it is situated, and the adjacent Parts; and hence produces a Jaundice, but of a more chronic Kind, accompanied with many of the Symptoms above-mention'd; and attended with the same Effects. Such a *Scirrhus* will not yield to Emollients, and by acrid Medicines is converted into a most dreadful *Cancer*, the terrible Effects of which are evident, from reflecting on what has been said of a *CANCER*, compar'd with its Situation in this Organ. The Effect of such a *Scirrhus* must be a perpetual Jaundice; which must be treated with extremely mild Remedies, and even with these can scarcely ever be cur'd.

If there is an Inflammation of the Liver, which neither resolves, suppurates, nor turns to a Gangrene, and a Tumor and Hardness remain; if after this the Patient begins to feel Pain in the Part, a *Cancer* is certainly form'd.

It is remark'd, that Cows, in the Winter, have often scirrhus Livers, and that, upon being turned out to Grass, in the Spring, they are cur'd by means of a profuse Diarrhea: Hence 'tis probable a Man may be cur'd of a *Scirrhus* of the Liver, by means of a continued Diet of emollient Vegetables, as Grass. Succory, Endive, and the like; and Fruits, as Cherries, Currans, and Cucumbers; and Whey; avoiding Flesh, and Fish of all sorts, and Spices.

If a slight Inflammation happens in a small Portion of the Liver only, it may lay a Foundation for a small Stone, *Scirrhus*, Pustule, or Abscess, which of themselves can do no great Injury; but, upon the Access of a Fever, may be instrumental in exciting another and more dangerous Inflammation, with all its Consequences mention'd above.

Lastly, An Inflammation of the Liver sometimes terminates suddenly in Death, provided the Causes are so violent as to permit nothing to circulate through any Part of this Organ, and it is attended with a severe Fever. For then the Vessels of the Liver are contracted at their Extremities, and their larger Ramifications distended, insomuch that the Functions of this Organ are utterly interrupted; an excessive and sudden Jaundice comes on; the Vessels are ruptur'd; the Blood and Bile are extravasated; and the Patient instantly expires.

This is prognosticated,

First, From the Violence of the Inflammation.

Secondly, From a sudden and excessive Loss of Strength.

We know that it has actually happen'd, when Blood, Bile, Excrements resembling the Lees of Oil, green or black, fetid, and cadaverous, are discharg'd by Vomit, or Stool; when violent,

lenir, and perpetual Hiccups torment the Patient; when the Fever is extremely intense, and the Thirst unextinguishable; and when an excessive Paleness suddenly comes on.

From all that has been said above, many Symptoms which occur in acute Distempers, frequently attributed erroneously to Malignity, may be clearly understood. For the State of all the abdominal Viscera, and their respective Actions, as Digestion, Assimilation, Nutrition, Recruiting the Blood with fresh Supplies, and the Expulsion of the Excrements, depend upon the Liver. In this Organ there are three sorts of Humours, which readily putrefy by Heat; that is, a thin Blood in large Quantities; the Cystic, and Hepatic Bile. It is, farther, to be remark'd, that the Situation of the Liver is such, as renders it very subject to affect the Diaphragm and Heart; and that when the Extremities of the biliary Ducts are obstructed, the bilious Fluid convey'd by the *Vena Portæ*, has an easy Access to the *Vena Cava*.

Hence the Nature of the black Vomit, also, a Disease very frequent in the *West Indies*, may be understood.

By considering all the Circumstances above explain'd, we may arrive at an accurate Knowledge of various Species of Jaundices; and understand the Reasons why this Distemper is sometimes easily cur'd, and under what Circumstances; why it is sometimes extremely obstinate; why it sometimes proves fatal very suddenly; and why, at other times, it continues long before it destroys the Patient; why it sometimes comes on, remains, disappears, and returns, at Intervals; why the Appearance, Cessation, and Return of a Jaundice, are so frequently preceded by great Anxieties, enormous Vomings, Pain, and Convulsions; and what it then imports, that is, that the Bile is prevented in the large Ducts, from flowing into the Duodenum; why a Jaundice, appearing in an acute Fever, before the seventh Day, is a Circumstance of very bad Presage; and why, after the seventh Day, it scarcely admits of a Cure; why a copious Dysentery, of no long Continuance, effectually cures a Jaundice; why Bleeding is of so little Relief in Inflammations of the Liver; that is, because the biliary Organs have not so immediate a Communication with the other Parts of the vascular System, but form, as it were, a considerable separate Machine; why it is of so much Importance in acute Diseases, to regard the Pains, Tumors, and Elevations of the Hypochondria; why the Colour of the Eyes and Urine so suddenly shew the Presence and Termination of a Jaundice; why inflammatory, putulent, gangrenous, and scirrhus Disorders of the Spleen, Stomach, Omentum, Mesentery, and Intestines, always affect the Liver in so violent a Manner; and why, on the other hand, inflammatory and scirrhus Disorders of the Liver affect these Viscera; why the Liver is sometimes tumefied and augmented to so prodigious a Bulk; and why it is dry'd, and render'd friable, when the Fluids can no longer circulate through it; why a Dropsy arises from Disorders of the Liver, and, sometimes, a Tympanitis, of worse Consequence; for, when the bilious Particles are not secreted from the Blood by the Liver, these Particles attenuate the Blood, and render it extremely thin, so as to transude easily through the Vessels, and be accumulated in the Cavities of the Body; see TYMPANITIS, and HYDROPS; why in a Dropsy the Liver is extenuated and dry, and the Spleen tumid: And, lastly, hence we understand the Nature of an Hepatic Dysentery, and an infinite Number of Circumstances relative to Disorders of this Kind.

I cannot forbear remarking, on this Occasion, a very extraordinary Circumstance, which happens upon the Bite of a Viper: It is, that the Person affected soon after vomits, and has his whole Skin, in a very short time, ting'd with a yellow Colour, as in a Jaundice. If we reflect, that the Poison, receiv'd by the Bite of a Viper, disposes the Blood to immediate Coagulations, and that the Bile effectually attenuates the Blood, and preserves it from Coagulation, we may, perhaps, have Reason to believe, that by some Mechanism, at present unknown to us, the common biliary Duct, which transmits the Bile to the Duodenum, is spasmodically constricted, in such a manner as to prevent a Discharge of the Bile into the Intestine; and that the Vomiting is at the same time excited, in order to press the Liver and Gall-bladder, and force the Bile back into the Blood, that the approaching Coagulation may be prevented: For we find, that on other Occasions, when the large biliary Duct, near the Duodenum, is obstructed, Vomiting induces a Yellowness, by forcing the Bile into the Blood.

HEPATARIUS. The same as HEPATICUS, Hepatic.

HEPATEROS, ἡπατερός, from ἥπαρ, the Liver, is an Epithet of a Sort of Dysentery, in which an aqueous Blood is excreted, like Water in which new-kill'd Flesh has been wash'd. *Gorræus*.

HEPATICA TRIFOLIA.

The Characters are;

The Root is fibrous and perennial; the Pedicles of the Leaves arise from the Root; the Leaves consist of three Lobes, the Stalks are naked, floriferous, or flower-bearing, simple, and spring from the Root. The Perianthium, or Calyx, is monophyllous, deeply cut, commonly into three, rarely into four Lobes, and permanent. The Flower is rosaceous, polypetalous, naturally pentapetalous, and furnish'd with numerous Stamina. The Fruit is

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globular, and has every one of its Cells furnish'd with a crooked Tube: In other respects it resembles the lesser Celandine.

Boerhaave mentions seven Species of this Plant; which are,

1. Hepatica; trifolia; cœruleo flore. *Boerb. Ind. A.* 30. *Trifolium aureum*, *Hepatica nobilis* Offic. *Trifolium Hepaticum flore simplici*. C. B. Pin. 330. *Raii Hist.* 1. 580. *Trifolium Hepaticum*, five *Trinitatis Herba flore cœruleo*. J. B. 2. 389. *Hepatica nobilis*, five *trifolia*. Park: Theat. 1368. *Hepaticum trifolium*. Ger. 1032. Emac. 1203. *Ranunculus tridentatus vernus flore simplici cœruleo*. Tourn. Inst. 286. NOBLE LIVERWORT.

The Flowers of this Liverwort arise out of the Ground early in the Spring, before the Leaves; they grow on long, slender, and somewhat hairy Foot-stalks, four or five Inches long, inclos'd in a three-leav'd green Calyx: They are made up of six blue roundish-pointed Leaves, set about a small green Head, with several whitish-blue Chives in the Middle; the green Head afterwards is enlarg'd into several small naked Seeds. The Leaves come up when the Flowers are past, consisting each of a Leaf of three equal Lobes, round, and somewhat pointed at the End, of a dull-green Colour, growing on long Foot-stalks. The Root is small and stringy. It is usually planted in Gardens, and flowers in *March*.

The Leaves are us'd, though but very rarely, here in *England*; but they are commended by some foreign Authors, as a very good Vulnerary, and useful in Distempers of the Liver.

It is cultivated in Gardens, and flowers in the Spring. As to its Virtues, it corroborates the Stomach by its astringent Quality, and is, therefore, proper in all Disorders proceeding from Relaxation, and where Astringent is requir'd: Hence it is of Service in vulnerary Drinks, in the Diabetes, Spitting of Blood, or making of bloody Urine. It is much commended in an Hernia; and the Leaves pulveriz'd are excellent in the Dysentery. A Decoction of the Leaves is effectual against the Jaundice, Itch, fetid Ulcers, and the Quinley. The whole Plant is of Service in Obstructions of the Kidneys, Bladder, and Liver. *Boerb.* The Dutch make it an Ingredient in their compound Syrup of Succory. *Dale*.

2. Hepatica; trifolia; flore cœruleo; pleno. *Clus. H.* 248.

3. Hepatica; trifolia; rubro flore. *Clus. H.* 248.

4. Hepatica; trifolia; flore rubro; pleno.

5. Hepatica; trifolia; flore albo simplici.

6. Hepatica; trifolia; flore carneo, simplici.

7. Hepatica; trifolia; flore cinereo, simplici. *Boerb. Ind. alt. Plant. Vol. 1. p. 30.*

HEPATICA fontana. A Name for the *Lichen; primus*.

HEPATICA minor stellaris. A Name for the *Lichen; secundus*.

HEPATICA minor umbellata. A Name for the *Lichen; tertius*.

HEPATICA vulgaris. A Name for the *Lichen; maritimus*.

HEPATICUS FLOS. A Name for the *Parnassia; palustris & vulgaris*.

HEPATICUS, ἡπατικός, from ἥπαρ, the Liver, Hepatic, is an Epithet for any thing belonging to the Liver. They who labour under any Disorder of the Liver are also call'd ἡπατικοί, *Hepatics*; though the Antients confin'd that Appellation to those who were affected with an Inflammation of that Part, in the same manner as they gave the Names of *Pleuritics*, and *Peripneumonics*, to those who were affected with Inflammations of the Pleura, or Lungs; and thus are we to understand the Word in the *Coac. Prienor*. But, in later Ages, ἡπατικοί, *Hepatics*, came to signify those, who, without any manifest Disorder of the Liver, suffer only by an Imbecility of that Part, which disables it from performing its Functions. This appears from *Galen, de C. M. S. L. Lib. 8. Cap. 6.* where he says, "that an hepatic, as well as a celiac and stomachic Affection is an Indisposition of the Parts, without a Tumor. Physicians say, the Liver is affected with an Inflammation, an Abscess, or a Scirrhus, or some other Disorder, without calling the Patient an Hepatic: But when there is no manifest Affection of that Part, but merely an Inability, through Weakness, to discharge its proper Functions, such a Person has the Name of an Hepatic given him." The Author of the *Definitiones Medicæ* says, "that Persons long affected with a Pain of the Liver, attended with a Tumor, and Hardness, and Loss of Colour, are call'd Hepatics."

HEPATITES, ἡπατίτις. See HEPAR.

HEPATORIUM. The same as HEPATORIUM.

HEPATUS. The Name of a Fish mention'd by *Aldrovandus de Piscibus, Lib. 1. Cap. 12.*

HEPHÆSTIAS. The Name of a Plaster, very good to induce a Cicatrix; it was prepar'd of Tiles, especially such as had been burnt in Kilns, because they have more of a drying and absterive Quality. *Castellus*.

HEPHTHOTES, ἡφθότος, properly, a Concoction, or Colliquation, produc'd by Elixation, or Boiling. *Hippocrates, Lib. de Rat. Med. in Morb. acut.* tells us, that too much Sleep dissolves the Body, and induces ἡφθόσια, which *Galen*, on the Place, explains by *καθάρσις*, "a Littlefiness." So, *Lib. 4. Epid.* they, who, under a Fever, have their Bodies, through a Redun-

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dance of Humidities, dissolv'd, as it were, into a State of Elixation, by the humid Heat, are call'd *εψοι*, Hephthi.

HEPIALA. The same as EPIALA.

HEPSANA, *ἑψανα*, in *Hippocrates*, *Lib. 2. de Morb. Mul.* are boil'd Aliments with the Broth.

HEPSEMA, *ἑψημα*. The same as DEFRUTUM. See DECOCTIO.

HEPTAPHARMACUM, *ἑπτάφάρμακον*, from *ἑπτὰ*, seven, and *φάρμακον*, a Medicine, or Remedy. A relaxing, suppurating and incarning Medicine, so called from the Number of its Ingredients; which are Ceruss, Litharge, Wax, Pitch, Colophony, Bull's Fat, and Frankincense, as it is describ'd by *Aetius*, *Tetrab. 4. Serm. 3. Cap. 27.*

HEPTAPHYLLUM, *ἑπτάφυλλον*, from *ἑπτὰ*, seven, and *φύλλον*, a Leaf, is Tormetil; so call'd from the Number of its Leaves, which are commonly seven, surrounding the Stalk. *Blancard.*

HEPTAPLEUROS, *ἑπτάπλευρος*, from *ἑπτὰ*, seven, and *πλευρά*, a Rib. Having seven Ribs; an Epithet bestow'd on the Nation of the *Ligurians*, according to *Pollux*. *Castellus.* Heptapleuron is, also, the *Plantago major*, or greater Plantain; a Name given it, because it is furnish'd with seven Ribs. *Blancard.*

HERACLEIUS, *Ἡρακλῆς*, from *Ἡρακλῆς*, Hercules, Herculan, is an Epithet of the Epilepsy, *Hippocr. Lib. 1. de Morb. Mul.* so call'd either because Hercules was the first of the Heroes who labour'd under it; or because it is a great and violent Disorder, and difficult to be subdued, as is the Opinion of *Galen*, *Com. in 6 Epid.* with whom agrees *Aristotle*, in *Erolian*, who adds, that the Mania was antiently so call'd, because Heroes, as Hercules, were only subject to that Disorder. *Herculeus Lapis* is the Magnes, or Loadstone. *Galen de Usu Partium, Lib. 6. & de Locis Affect. Lib. 6. Castellus.*

HERACLEOTICUM. A Name for the *Origanum*; so call'd from *Heraclea*, a City of *Pontus*, where it was produc'd in greatest Plenty, or best in its Kind. *Blancard.*

HERALEA, according to *Blancard*, is a Name for several Herbs, taken from *Hercules*; but, on what account, he professes himself ignorant.

HERBA. See the Explications of Terms under the Article BOTANY.

HERBA BENEDICTA
HERBA DORIA
HERBA FELIS

HERBA GERARDI
HERBA HÆMORRHOÏDUM
HERBA JUDAICA

HERBA MAXIMA
HERBA PARALYSIS
HERBA PARIS.

The Characters are;

The Calyx consists of four Leaves, which expand in Rays. The Flower is tetrapetalous; the Petals dispos'd in the Form of a Cross, and furnish'd with four Stamina. The Fruit is soft, globular, furnish'd with four Tubes, divided into four Cells, and full of oblong Seeds.

Boerhaave mentions but one Species of this Plant; which is, *Herba Paris*. *Offic. Ger. 318. Emac. 61. Raii Hist. 1. 670. Synop. 3. 264. Park. Theat. 390. J. B. 3. 613. Tourn. Inst. 233. Boerh. Ind. A. 2. 72. Solanum quadrifolium bacciferum. C. B. Pin. 167.*

HERB PARIS. The Roots of this Herb run creeping along on the Surface of the Earth, being slender, and of a brown Colour, shooting up here-and-there, being long round Stalks half a Foot high; having usually four, tho' sometimes five or six Leaves, which are pretty broad and roundish, narrowest next the Stalk, and ending in a sharp Point. From among these arises a slender Stalk, two or three Inches high, bearing one single Flower, composed of four long green Leaves, with as many very narrow ones under them, of the same Colour, having several Stamina among them; in the Middle of these grows a roundish Black-berry, about as big as a Grape, of an insipid Taste. It is found in moist shady Woods, which have a good Soil; the nearest Place to *London*, that I know of, where it grows, is *Chiselhurst* in *Kent*, in a Wood by the Bog, at the Entrance of it next the Town. It flowers in *April* and *May*, and the Berry is ripe in *July*.

Though this Plant was formerly accounted of a poisonous Nature, being reckon'd among the *Aconites*, *Fuchsius* calling it *Aconitum Pavidallanches*; yet Authors, who have wrote since, attribute to it quite contrary Effects, esteeming it to be a Counterpoison, and an Alexipharmic, and good in malignant and pestilential Fevers.

Parkinson says, the Roots, boiled in Wine, help the Colic; and the Leaves, apply'd outwardly, repress Tumors and Inflammations, especially in the Scrotum and Testicles, and ripen pestilential Tumors.

Baptista Sardus, and *Casalspinus*, have affirmed, that the *Herba Paris* is good for Madnets. The first of these prescribed half a

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Spoonful of the Powder, taken fasting for twenty Days. *Camerarius* says, the Powder of its Roots eases the Colic. *Pena* and *Lobel* relate, that the following Antidote cured some Dogs, which had been made to take Arsenic and corrosive Sublimate; and others, which had eaten Arsenic mix'd with the *Nux Vomica*.

Take of the Root of Bohemian Angelica and wild Angelica, of *Vincetoxicum*, great Valerian, Polypody, Marshmallows, and Nettles, of each four Drams; two Drams of the Bark of *Mexereon Germanorum*, thirty-six Plants of *Herba Paris*, twenty-four Fruits of the same Plant: Macerate the Roots in Vinegar; dry them, and powder them with the rest. The Dose is two Drams in Red-wine.

Tragus says, the *Herba Paris*, bruised and apply'd as a Cataplasm, asswages the Inflammation, and dissolves the Swelling of the Testicles; it is a sovereign Remedy for Whitlows: The distil'd Water of it cures Inflammations of the Eyes. *Martyn's Tournesfort.*

The Berries are esteem'd Alexipharmic, and good against pestilential Diseases, and Poisons. The Leaves contus'd, and made into the Form of a Cataplasm, are good for pestilential Buboec, and hot Tumors. The Plant, apply'd as a Topic, eases Ischiadic Pains, is good in Contusions, and is esteem'd an Antihysteric.

HERBA PETRI
HERBA SACRA
HERBA SARDIA

HERBA S. JOHANNIS
HERBA S. LAURENTII
HERBA S. PETRI
HERBA SCORBUTI
HERBA STELLÆ
HERBA STUDIOSORUM

HERBA TERRIBILIS
HERBA TRINITATIS

HERBA TURCA
HERBA VENENOSA
HERBA VENTI

HERBA VIVA

PRIMULA VERIS.
VERBENA.
RANUNCULUS; PALUSTRIS;
APII FOLIO; LÆVIS
ARTEMISIA.
BUGULA.
CRITHMUM.
COCHLEARIA.
CORONOPUS HORTENSIS.
CHENOPodium; LINI FOLIO VILLOSO.
ALYpum.
HEPATIC; TRIFOLIA; COERULEO FLORE.
HERNIARIA.
SIUM; ERUCÆ FOLIO.
PHLOMIS; NARBONENSIS;
FOLIO HORMINI; FLORE PURPURASCENTE.
POLYPODIUM SENSIBILE;
AUT POLYPODIUM VIRGINIANUM.

See

Herba vulneraria seu Virga aurea vulgo Germanica. Offic. Conyza affinis Germanica. C. B. 266. Conyzis affinis Herba vulneraria sive Solidago Sarracenicæ III. Tragi hirsuta. J. B. 2. 1051. GERMAN GOLDEN-ROD.

It grows in mountainous Places, and flowers in *July*. The Herb is used, and is possess'd of the same Virtues with the *Virga aurea*; for which it is sold in the Shops of *Germany*, as *Buxbaums* affirms.

HERBARIUS, *βιβλιον*, an Herbalist, Herborist, or Botanist.

HERBATUM *Cavadensum*, seu *Panax Moschatum*, Cornut. *Panax Moschatum Americanum*, sweet-scented All-heal of *America*. *Park.* A Plant growing in *Canada* in *America*, two Cubits in Height, with Leaves a Foot long, resembling those of the Garden Costus, or Dittander. The Flowers are white, like those of the Garden Panax, and diffuse their Fragrancy to a good Distance, having a more grateful Smell than Musk; the Leaves have an acrid and aromatic Taste, with somewhat of a bitterish Relish at last, but the Root has not the same Bitterness. It flowers in *September* and *October*.

The Operations of this and the other *Panax racemosa Americana* are found to be more alimential than medicinal, being familiarly eaten by the Natives, and *French*. *Parkinson.*

HERBIVORUS, *πρωτοφάγος*, herbivorous. An Epithet of Animals which live on Grass and Herbs, thus distinguishing them from carnivorous or Flesh-eating Animals.

HERCULES, *Ἡρακλῆς*, besides the noted Hero of that Name, is a Term for several Medicines of drastic and potent Qualities, particularly of a Collyrium, effectual for curing the *Ægilops*, in *Aetius*, *Tetrab. 3. Serm. 4. Cap. 55.* And another Medicine appropriated for drying and consuming Excrecences, and consisting of equal Parts of Squama *Æris*, Misy, burnt Chalcitis, Atramentum Sutorium, and burnt Alum, is called by the same Author *Ἡρακλῆς ξηρῆς*, "dry (or drying) Hercules." Among chymical Preparations, *Hercules Borii* is a celebrated Cathartic and Emetic. *Castellus.* See MERCURIUS.

HERCULIS CLAVA. *Arbor spinosa Virginiana, Caudice & Ramis Lanigera spinosa Malabarica similis.* "Hercules's Club," or the thorny *Virginian* Tree, in its Trunk and Branches resembling the thorny lanigerous or Wool-bearing Tree of *Malabar*; from which it differs in the acrimonious and hot Taste of its Bark. *Raii H. P. p. 1806.* I find no Account of its medicinal Virtues.

HEREOS,

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HEREOS, in *Paracelsus*, Lib. 3. de *Orig. Morb. invisibil.* is a sort of imaginary Love, in nocturnal Pollutions. *Castellus*.

HERINACEUS, call'd also *Erinaceus*. *Offic. Schrod.* 5. 286. *Charlt. Exert.* 19. *Herinaceus*. *Schw. Quad.* 96. *Herinaceus & Erinaceus*, *Mer. Pin.* 167. *Echinus terrestris*. *Jons. de Quad.* 119. *Aldrov. de Quad. Digit.* 168. *Echinus sive Erinaceus terrestris*. *Raii Synop.* A. 231. THE HEDGHOG, or URCHIN.

It is found in Thickets and Hedges. What is useful in Medicine, are the whole Animal, the Liver, the Feet, and the Ventricle. The Hedghog boiled, or burnt to Ashes, helps an involuntary Discharge of Urine, is grateful to the Stomach, and excites Excretions by Urine and Stool; externally it cures the *Alopecia*, being rubbed on the Part. The Liver, or the Body dry'd, and taken in Oxy-mel, is effectual in nephritic Disorders, and cures a Cachexy, Dropsy, Convulsions, and Elephantiasis, and dries up Rheums in the Viscera. *Diosc.* The Fat is most successfully used in a Hernia. *Hart.* The Membrane, or Coat, of the Ventricle, is recommended for the Colic. *Schrod.* The Decoction, or Broth, of the Flesh, is very serviceable in the Dropsy, by provoking Urine. *Dale.*

HERMANNIA.

The Characters are;

The Calyx is monophyllous, resembling a Bladder, quinquefid, and deeply jagged. The Flower is pentapetalous, the lower Petals narrow, the upper ones broad, and in a manner convolved on one Side, surrounding the Bottom of the Ovary; whence, also, proceed five Stamina. The Ovary is seated in the Bottom of the Calyx, and is pentagonal, pentangious, that is, consisting of five Vessels, and furnished with a long Tube.

Boerhaave mentions seven Species of this Plant; which are,

1. *Hermannia*; frutescens; folio oblongo, serrato. *T.* 656.
2. *Hermannia*; frutescens; folio oblongo, serrato latiori. *Ind.* 115.
3. *Hermannia*; frutescens; folio grossulariæ parvo, hirsuto. *Ind.* 115.
4. *Hermannia*; frutescens; folio Ibis-ci hirsuto, molli; caule piloso. *Ind.* 115.
5. *Hermannia*; frutescens; folio multifido, tenui; caule rubro. *Ind.* 116.
6. *Hermannia*; frutescens; folio oblongo, molli, cordato, hirsuto. *Ind.* 116.
7. *Hermannia*; frutescens; folio Lavendulæ latiori & obtuso; flore parvo, aureo. *H. R. D. Boerb. Ind. alt. Plant. Vol. 1. p.* 273.

In the *Historia Plantarum*, ascrib'd to *Boerhaave*, this Plant is said to be us'd in *Africa*, for the same Purposes as Mallows; and the Nature of the former seems to approach very near to that of the latter, since their Taste and Smell are the same.

HERMAPHRODITUS, ἑρμαφρόδιτος, from ἑρμῆς, Mercury, and ἀρσῆν, Venus. An Hermaphrodite; that is, one who partakes of both Sexes.

As I look upon all the Histories related of Hermaphrodites to be merely imaginary, I shall only observe, that of many I have seen who have been reported to be so, I have met with none who were any more than mere Women, whose Clitoris was grown to an exorbitant Size, and whose Labia Pudendorum were preternaturally tumid.

HERMES, Ἑρμῆς, is the Greek Name for *Thoth*, or *Thouth*, the same Person whom the *Latins* call *Mercurius*, Mercury, and whom some learned Men conjecture to be the same with *Chanaan*, the Son of *Cham*; but, tho' these two might be different Persons, they might at least have lived at one time, and *Hermes* be the older; for *Bochart*, in his *Phaleg*, has proved that *Chronos*, or *Saturn*, was the same Person as *Noah*. Now we learn from *Sanchoniathon*, that *Hermes*, or *Thoth*, or *Tacutius*, (as he was called by the *Egyptians* and *Phenicians*) was one of *Saturn's* Counsellors; and *Diodorus Siculus* says, that *Hermes* was Secretary to *Osiris* and *Isis*, the most ancient King and Queen of *Egypt*, who were both said to be the Children, or Grand-children, of *Chronos*. *Sanchoniathon* makes *Hermes* a *Phenician*, and the Son of *Misor*, who lived about the Time before-mention'd; and *Clemens Alexandrinus* makes him a Native of *Thebes* in *Egypt*; and others say, that he was the Son of *Philon* by his Daughter *Proserpina*. Whoever he was, it is certain, that the *Egyptians*, and after them all other Nations, have ascribed to him the Invention of all Arts and Sciences, and of Medicine in particular; for which Reason the Antients, doubtless, often represented their Mercury accompany'd with the Goddess *Hygieia*, or *Health*, which he was supposed to have brought to Mortals with his Medicines. *Josephus* tells us, that the Sons of *Seth* built Columns, on which they engraved what they knew of Astronomy: Mercury took the same Measures in leaving to Posterity the Monuments of his Knowledge, as we are inform'd by *Eusebius*, from *Atanetho*, an *Egyptian* Priest, who says that *Thoyt*, or the first Mercury, had writ many Things in sacred Language and Characters, and that *Agathodæmon*, or the second Mercury, the Father of *Thoth*, translated these Writings into *Greek*, after the Deluge, and compos'd Books of them in sacred Letters, which were preserv'd

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in the most secret Place of the *Egyptian* Temples. *Iamblichus*, also, says there were Columns in *Egypt* quite cover'd with Writings, containing the Doctrine of Mercury; and says farther, that *Pythagoras* and *Plato* received great Improvements from what they had read in the Writings of Mercury. *Plato* himself, in more than one Place, speaks of the Columns on which the *Egyptians*, and other antient People, wrote their Laws, and the History of their Times, with the most considerable of their Inventions.

Whether all that is related of these Columns, and the Extracts which the *Egyptian* Priests pretended they made from them, be true or not, what was publish'd of them gave occasion to a Multitude of Writings, or Books, which pass'd for Copies of these Extracts, and were pretended to be the genuine Works of Mercury. *Iamblichus* reckons thirty-six thousand, five hundred twenty-five of those Books; but though the Books of the Antients were commonly very short, there appears an Exaggeration, and some learned Men have had Reason to reduce those Books to so many Verses. Of all those pretended Books of Mercury, there are not many whose Titles are preserved, and fewer which have descended entire to us. Some of them are printed, and others are kept in Libraries, as in that of *Vienna*, of which you may find an Account in *Lambecius*, *Morhofius*, and other Authors. There are several things concerning Chymistry, and the famous *Emerald-table* of *Hermes*. But, if *Hermes* was the Inventor of Chymistry, it was not of medicinal, but metallic Chymistry. Of the Books of Mercury, mention'd by the Antients, and which concern'd Medicine, there were several much suspected in *Galen's* time; particularly one, of which that Author speaks, and says, it was one of those which was ascribed to the *Egyptian Mercury*.

We have mention'd the *Sacred Books* of Mercury, which were very carefully preserved in the *Egyptian* Temples; it was, doubtless, one of those Books, called by *Diodorus*, simply, *The sacred Book*, which regulated the Practice of Medicine in *Egypt*, so far as that they who followed its Precepts were exempt from Blame, though the Patient died under their Hands; but if they deviated from them in any manner whatsoever, and the Patient happen'd to die, they were condemn'd as Murderers. *Clemens Alexandrinus* is more full to the Purpose, and says, "There were two-and-forty Books of *Hermes*, which were most considerable; thirty-six of them contain the whole *Egyptian* Philosophy, and were read to the Sacrificers and the Prophets; the other six, which related to Medicine, were learn'd by the *Paslophori* *." The first of these treats of the Construction of the Body; the second, of Diseases; the third, of necessary Instructions; the fourth, of Medicines; the fifth, of Diseases of the Eyes; and the last, of Diseases incident to Women."

There can be nothing more exact than this Method; but these Books, very probably, were compos'd some Ages after *Hermes*, at a time when Medicine was much improved; and it is not to be doubted but the *Egyptian* Priests pass'd their own Works under the Name of their *Hermes*, or some celebrated Physician; and, if the thing were not in a manner self-evident, we might infer as much from *Iamblichus*, who assures us, that "the *Egyptian* Priests, out of a Persuasion, that Mercury was the Inventor of every thing, generally attributed to him their own Inventions," or did Honour to themselves, "in putting his Name to their own Works."

At present we have not the least Remains of these Books, and therefore know no more of this Medicine of *Hermes* than the general Heads of what it treated: If there are any other Books, which were ascribed to him, and are preserved down to our Times, and are really genuine, we may plainly infer from their Contents, that a great Part of the *Hermetic* Medicine was founded upon Magic and Astrology. This is confirm'd by a Passage in the Book intitled *Asclepius*, which was look'd upon, in antient Times, to be a Work of *Hermes*; and the *Latin* Version which we have of it is ascribed to *Apuleius*. This Passage mentions certain Statues, which inflicted Diseases, and also cured them, predicted Futurities, and did other prodigious things: *Hermes*, in the same Place, is called *Trismegistus*, that is, thrice greatest, which was the Surname given him by Antiquity.

The Book of the thirty-six sacred Herbs of the Horoscope, quoted by *Galen*, though granted to be spurious, is at least a Proof, that Mercury was generally believed not to confine himself to the ordinary Methods of Medicine; for otherwise they would not have ascribed to him a Treatise of that Kind. The Title of this Book has a near Relation to what *Origen* writes, "That the *Egyptians* said, there were thirty-six Demons, or thirty-six Gods of the Air, who were Sharers in the Body of Man, which was also divided into as many Parts." He adds, "That the *Egyptians* knew the Names of these Demons in the Language of the Country, and believed, that by invoking each of them, according to the Part which was diseased, they were cured."

It is probable, however, that Mercury made use, also, of some

* The *Paslophori* were an Order of Priests, so called, because they wore long Cloaks, or were appointed to carry the Bed of *Venus*, on certain ceremonious Occasions: They were the principal Persons who practis'd Medicine in *Egypt*.

ordinary or natural Remedies; but we have but little left on Record of that Nature. The Herb called *Moly*, which *Mercury* presented to *Ulysses*, as a Preservative against the Charms of *Circe*, is still reckon'd among superstitious Remedies. But that which bears the Name of *Mercury*, (*Mercurialis*) was probably used originally for the same Purposes as we employ it for at present. To *Mercurialis* we may add *Coral*, which, being pulverized, and infused in pure Wine, *Mercury* said, was good against the Poison of Serpents. The Author of the Hymn to *Mercury*, which is ascrib'd to *Orpheus*, and where we find what has been said of *Coral*, speaks also of a Grotto of *Mercury*, in which were kept "all manner of good things," and where "Diseases had no Power;" and that there were Remedies in particular "against the Bites of Serpents, for Lunatics, and for Lepers." But *Orpheus* does not inform us, what Means *Mercury* made use of to work these Effects.

I find no more Particulars of the Medicine of *Hermes*, unless we have a mind to make him pass for the Author of all the ancient medicinal Practice in *Egypt*. *Aristotle* speaks of an ancient Law of the *Egyptians*, by which "Physicians were prohibited to move the Humours (that is, to purge, as appears from the Practice of *Hippocrates*) before the fourth Day of the Distemper, as they would answer it at their own Peril." This seems to have relation to what has been said, that the Physicians of that Country were obliged to regulate their Practice by what they called the *Sacred Book*; and perhaps this Law was contain'd in the Book which was ascribed to *Mercury*. *Diodorus*, also, observes, that the *Egyptian* Medicine consisted wholly in *Abstinence*, *Clysters*, and *Emetics*; but there are no Proofs, that *Hermes* established this Method in particular.

Anubis, or *Hermanubis*, was the same as *Hermes*, or *Mercury*; the *Caduceus*, born by the former in some Medals, is a Proof of it; and *Diodorus Siculus* assures us of it. He is represented with the Head of a Dog, because that Animal is an Emblem of Sagacity; he is join'd in some Medals to *Isis*, because he was her Preceptor, or Counsellor.

HERMESIA. A Name in *Libavius de Igne Natur.* for *Chymia Hermetica*, or the Hermetic Chymistry. *Castellus*.

HERMETICA MEDICINA, Hermetic Medicine, or Chymical Medicine. See HERMES.

HERMODACTYLUS. See BEHEN, and COLCHICUM.

The Characters are;

It has all the Appearance of the *Iris*; the Leaves are narrow, and triangular, or quadrangular; the Root is tuberous, being composed of a Collection of Tubercles.

Boerhaave mentions but one Species of this Plant; which is, *Hermodyctylus*; folio quadrangulo. T. C. 50. *Hermodyctylus verus*. Matth. 778. *Iris tuberosa*. H. Eyst. Vern. o. 5. F. 4. Fig. 2. Dod. p. 248, 249. *Iris tuberosa*, folio anguloso. C. B. P. 40. *Iris tuberosa*, *Belgarum*, & secundum *Aldrovandum* *Lonchitis prima Diofcoridis*. Lob. Obs. 51. Advers. 363. Ic. 98. *Iris bulbosa*, *præcox*. Clus. SNAKES-HEAD IRIS.

The Root of this Plant has a Tubercle, which purges very powerfully both upwards and downwards, for which Reason it is commended in the Gout, as a powerful Cathartic. This Root, when old, often loses all its purgative Virtue: It is commended as a Specific in the *Gutta Serena*: They mix it with Ginger, on account of its Viscosity, which is subject to excite Gripes. *Hist. Plant. ascript. Boerhaav.*

This Plant has, by some Botanic Writers, been supposed the true *Hermodyctylus*; but what has been long used in *Europe* for that, is a true *Colchicum*.

HERMOLAOS. The Name of a *Collyrium Staticum*, that is, a Collyrium which represses and stops Defluxions: There are two of them so called, the greater and the less, both which are described by *Actius*, *Tetrab.* 2. *Serm.* 3. *Cap.* 102.

HERNANDIA, *Jack in a Box*, is a Plant very common in *Jamaica*, *Barbadoes*, *St. Christophers*, and many other Places in the *West Indies*; where it is known by the Name of *Jack in a Box*. *Miller's Dictionary*, Vol. 2.

HERNIA. A Rupture.

RUPTURES in general.

Most preternatural Tumors about the lower Part of the Abdomen, the Navel, Groin, and Scrotum, caused by a Descent of the Intestines or Omentum, are in general termed Ruptures. These differ (1.) as to their Situations: Thus those formed at the Navel are called Umbilical Ruptures, or *Omphalocele* and *Exomphalos*; those in the Inguen, inguinal Ruptures, or *Bubonocoele*; those of the Scrotum, *Oscrocoele*; in other Parts of the Belly, they are distinguished by the Name of Ventral. (2.) They differ in the Contents, and from thence too receive different Appellations. A Tumor, proceeding from a Falling out of the Intestines, is termed an *Enterocoele*; from the Omentum, an *Epiplocele*; from Wind, a *Pneumatocele*; from Water, an *Hydrocele*. (3.) They differ as to their Size, some being small, others larger, and others of an enormous Bulk; some soft, others hard; some fixed, some moveable, and easily returned into the Abdomen; others not without great Difficulty, or not at all; the last are called adhesive Ruptures. Sometimes the Parts prolapsed are so confined by Stricture and Inflammation, that the Wind and Fæces can by

no means be transmitted; these we denominate incarcerated Ruptures; some are free from Pain; others very painful, and attended with Sickness, Vomiting, and many bad Symptoms.

The OMPHALOCELE.

An *Omphalocele*, *Exomphalos*, or umbilical Rupture, is a preternatural Prominence of the Abdomen at the Navel. These differ in Size and Figure. Some of them, especially at the Beginning, are small, others large, and others of a prodigious Magnitude; some round, others pointed, and others cylindrical; which last I met with in a pregnant Woman, whose Navel was often distended to the Size and Shape of the Penis, extremely painful, and containing only Wind. These also differ as to their Contents; for some contain the Intestines; others the Omentum; others Air or Water; further, they are soft or hard, returnable or not, painful or incarcerated. *Scultetus*, in *Arma-ment. Chirurg. Tab. XXX.* furnishes us with Representations of these Ruptures.

The Causes are various, though the immediate Cause is always some Violence offered to the Abdomen, and principally the Navel: For the common Origin is either a violent sudden Motion, Fall, Leap, Blow, or Strain, in lifting great Weights, Coughing, Sneezing, and difficult Labours in Women: For any one of these Accidents will forcibly dilate the Peritonæum, as *Dionis* affirms, or sometimes break it, especially if it is weak; and, when it is thus dilated, the Intestines and Omentum, or the Omentum only, or Wind, is forc'd through the Navel. Sometimes a Laxity and Weakness of the Peritonæum, near the Navel, causes this Disorder, especially when it arises from some preceding Violence, or vehement Crying, in Infants; for I have often seen them labour under this Disorder soon after the Birth, especially when the Navel, after the Navel-string falls off, is not secured for some time by a proper Bandage.

We know an *Omphalocele* by the Sight and Touch, assisted by the Ear; for the Navel is preternaturally prominent: The Tumor, upon the Pressure of the Fingers, (unless the prolapsed Parts adhere externally) returns into the Belly, and, at its Return, makes some Noise, especially if the Patient lies on his Back. This is a certain Indication, that it proceeds from a Descent of the Intestines. Sometimes the Tumor is remarkably soft, and then we may reasonably conclude, that Wind, or the Omentum only, has forc'd a Passage; though, as this covers the Intestines, it seldom descends without being accompanied with them. The Descent of the Omentum alone is term'd a Rupture of the Omentum; that of the Intestines alone, an umbilical Rupture of the Intestines; if the Swelling continues, after the Intestines are return'd into the Abdomen, it indicates a Descent, both of the Intestines and Omentum, though, frequently, both the Omentum and Intestines are return'd together. In dropical Persons, the Navel is often distended by Water, as appears from *Scultetus's* Figure, and a remarkable Instance in *Purmannus's Chirurg. Curios.* But the Habit of Body shews, that this proceeds from Water, and may be called an aqueous umbilical Rupture, as that which contains Wind, is termed *flatulent*.

An *Omphalocele* in Children is not very dangerous, and, for the most part, easily cur'd. In Adults, likewise, there is no great Danger, while the Parts are capable of being return'd. But, as, in the last, they are never entirely free from Danger; if the Descent, or rather Protrusion of the Intestines through a narrow Foramen of the Navel, arises from a sudden Fall, and cannot be returned into the Belly, it is a troublesome, very hazardous Case; for, it is almost impossible, but that, from the Stricture of the Passage, the Blood must be prevented from returning out of the protruded Intestines; and the stagnating Fluids in the Vessels occasion Inflammation, excessive Pain and Anguish, with Vomiting; and, indeed, the worst Kind of it, a Vomiting of the Fæces (the Vulgar call this *Miserere*, Physicians the *Iliac Passion*); and, likewise, a Mortification of the Intestines, followed by a painful Death. But, when this Disorder has increas'd gradually, and the Aperture of the Perinæum is large enough to transmit the Intestines, the Hazard is not so great, particularly in Children, and young Men. Though, unless they apply a Bandage to repress the Intestines and Omentum, and abstain from Cold, violent Motion, too plentiful Feeding, especially on hard, thick, and flatulent Meats, it is very probable they will descend, the Place of the Descent be straiten'd, the Intestines confin'd, and so firmly inclos'd in the external Tumor, with extreme Pains, that they can never be return'd, but bring on the above-mention'd Symptoms, and Death itself. Experience convinces us, that no chyrurgical Operation will have any Effect upon this Disorder, but that it is rather hurtful, when the Hernia is considerable; for most Patients die under it, or very soon after. But, if the Intestines can be return'd, an *Omphalocele*, as well as any other Rupture, is sooner cured in Children than in Adults, by the Use of a proper Bandage, and the Observation of a regular Diet and Exercise. The Neglect of these is often followed by a Relapse. If this Tumor contains Wind only, the Disease is inconsiderable; if Water, it threatens a Dropsy.

There

There are two Methods of Cure, one adapted to the Case when the Intestines can, the other when they cannot, be return'd. In the first Case, the prominent Navel, with the prolapsed Intestines and Omentum, must be returned, and bound up tightly, to prevent a Relapse. Therefore, when the Aperture is large enough, after laying the Patient on his Back, you must depress and force them tenderly with your Hand, till they return; then proceed according to the Age: For, in tender Infants, I have often known an Hernia cured, after Repression and Reposition, by applying a small, round, proper Plaister, to the Navel, laying over that another, covered with Linen or Leather, to secure it; over this I put next a simple thick Compress, in a recent, and slight Disorder; then fasten the Whole with a simple Roller, three Fingers broad, and carried several Times, in circular Directions, round the Body; and am very careful, that, whenever this is open'd, it is immediately bound up again. Thus, in a few Weeks, have I sometimes completed my Cure. But, when the Disorder is inveterate, I use a double Compress of a less Size, and upon that, as more conducive to the Repression, I lay a leaden Plate, then a larger Compress, and proceed as before. But, in young Men, Adults, and old Men, to prevent a Relapse of the Omentum or Intestines, you must apply a Truss suitable to the Purpose, furnished with a peculiar Plate, and fasten'd round the Belly. The best are these represented *Tab. XLV. Fig. 6.* made of Leather, and, *Fig. 7.* of Wire, though there are others not despicable. But before you use this Bandage, you should lay on the Navel a sound strengthening Plaister; upon that, a sticking Plaister with a Compress. I am convinced from long Experience, that this Method, diligently pursued for some Months, will complete the Cure; and especially if the Patient is young, or the Disorder recent: More adult and aged Persons are seldom restored to perfect Health; but if they would prevent a Return of this Rupture, from whatever Origin it springs, they must wear these Trusses during their whole Lives; for by the Disuse of them, with an irregular Diet, and too violent Exercise, they will be exposed to imminent Danger of their former Disorder, the Iliac Passion, and Death itself, if it is a Descent of the Intestines, or Omentum.

This Cure then is only partial in Adults; and, among the Moderns, except *Saviard*, no one mentions a perfect or radical Cure. But the Antients, as appears from the most excellent *Celsus*, were solicitous about this Affair; and he has directed various Methods, the principal of which it cannot be amiss here to recite. "The Patient ought to lie on his Back, (says he) that the Intestines or Cawl may be returned into the Belly; and a Needle with a double Thread, must be pass'd thro' the inferior Part of the Navel, being then empty; and with these Threads, the (different Sides of the Navel must be tied very tight, (as in a Straphyloma): Thus, what is above the Knot, dies; the Navel subsides, and is closed with a firm Cicatrix." Some before the Ligature, cut the Top in a rectilinear Direction, that by introducing a Finger, they may repel the Rupture; and perhaps for another Reason, lest they should pass the Needle thro' the Intestines or Omentum at the same time. Some (without doubt, to procure a stronger Cicatrix) cauterized the deligated Part with Caustics, or the Cautery; and then healed the Ulcer, as in other Burns. And he asserts this to be the properest Method, not only in a Descent of the Intestines or Omentum, or both, but also where Water descends. It requires a good Habit of Body, and that the Patient be neither an Infant, nor old. Further, he says, it is serviceable in slight Tumors, but dangerous in considerable ones. These Observations partly agree with those of the Moderns, and partly incite us to the Study of more perfect Remedies.

Saviard, a Surgeon at *Paris*, attended a Girl about fourteen Months old, who laboured under this Malady. He laid her on her Back, and, having repressed the Intestines, elevated, as much as he could, the umbilical Tumor, which was as big as a Goose's Egg, and gave it to an Assistant to hold. Afterwards, he tied the Skin at the Bottom with a quadruple waxed Thread; in two Days he put on another Ligature, when the Swelling began to putrefy, and three Days after he added a third, always making the former Ligatures tighter, so that the Tumor at last was separated, and the Girl perfectly cured. He affirms, that he met with the same Success a second time, in another Girl, *Obs. Chirurg.* and it is surprising, that *Garengot* has made no mention of this, and, as *Saviard* himself does not inform us, whether these Cures might not have been performed by the Bandage described above, without flying to that cruel Method, there are sufficient Grounds for us to think they might.

But if the Aperture is so narrow, that the Intestines cannot be repelled, and the Patient is troubled with a Vomiting, and acute Pains, as well in the Tumor, as the Belly; then the Application of a Bandage in this, and other real *Hernia*, is useless and improper, because it would press the Parts too much; in this Case, therefore, rather apply proper Clysters, and emollient Cataplasms, as a Decoction of white Bread and Milk, with Butter and Saffron, and the like: With these foment and mollify the Intestines, till they can be conveniently return'd into the Belly. Then the Patient ought to lie on his Back, with his Head low,

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and, having removed the Cataplasms, you may try with your Hand tenderly, whether they are fit to be repelled: After you have done this, and continued it for some time, still finding the Intestines unfit for Reposition, inject the Smoak of Tobacco, through proper Tubes (delincated *Tab. LV. Fig. 13.*) into the *Anus*, till it gives a Stool, and they are relaxed. Long Experience convinces me of the wonderful Efficacy of this Remedy, which is usually styled a *Tobacco-clyster*. If there is a large Quantity of Blood, or an Inflammation in the Intestines, which is very common, then you must immediately open a Vein, and bleed plentifully, as in other Inflammations; for, by this, the Veins and Intestines subside, the bad Symptoms decrease, and by a gentle Pressure of the Hand, the prolapsed Parts return into the *Abdomen*. After this Restitution, however it is compassed, you must press the Orifice at the Navel with your Fingers, and a Compress; and then compress it with a Truss, or rather a proper Linen Bandage, as before ordered.

But if these Medicines, with the bleeding, have no Effect in twenty or four-and-twenty Hours, and every thing rather seems worse, have immediate recourse to the Chirurgical Operation, as the only remaining Hope; for, as this Operation, seasonably performed, will be very instrumental to the Recovery, of the Patient so the Procrastination of it will render it entirely vain and useless. For within twenty-four Hours, especially in young and vigorous Men, a Gangrene or *Sphaculus* comes on and destroys the inflamed Intestines: In old Men indeed they come on slower. The *Sphacelus* is followed by a Vomiting, and increasing Weakness, Coldness in the Extremities, and cold Sweats, and very soon by certain Death. As for the Operation, let the Aperture of the *Abdomen* be enlarged sufficiently to restore the compressed, incarcerated Intestines. This, therefore, is the Method: The Patient is laid on a Bed, or on a Table, with his Head somewhat low, but his Belly and Buttocks elevated; and is either fastened down with Cords, or secured by strong Men, to prevent his moving; then the Skin, over the prominent Navel, is held transversely by the Surgeon, or his Assistant, and, being drawn tight, if the Tumor is inconsiderable, an Incision is made with a Knife, but this with the utmost Caution, lest you wound the Intestines at the same time. Therefore the safest Way is, after making a small Puncture, to introduce immediately the Director (*Tab. XXII. M.* and *N.*) under the Skin, and, by moving the Knife carefully, enlarge the Wound longitudinally; and when this will not suffice in a large Tumor, make a transverse Incision, and divide the four Angles cautiously. In the next Place, divide the Fat, and Membranes with your Fingers, a Pair of Scissars, or the Knife; and, that you may not injure the Membrane, which immediately invests the Intestine, elevate that, and make a small Incision, as before directed, with respect to the Skin. Thus, having uncover'd the Intestines, insert the Director under the Membrane, dilate the Wound with a proper Instrument, and, when every thing is open to your View, press the Intestines gently with your Fingers into the Abdomen. But when the Foramen of the Navel is too small to admit a Return, having inserted the Director, or secured the Intestines with your Finger, you may enlarge it upwards, and towards the Left Side of the Belly, with an obtuse Pair of Scissars, or a Knife that has a Button on its Point. (See *Tab. XXVI. Fig. 3, 4, or 5*) till it will answer your Purpose. In Incisions of the Navel, made otherwise, the umbilical Vein and Artery may be injured, which is dangerous.

To avoid the Danger of the preceding Instruments, the Moderns have invented others; and, first, a Director (*Tab. XLV. Fig. 8.*) with Wings [A A] to press down the Intestines, and prevent any Injury from the Knife, which is in its Groove, during the Enlargement of the Foramen. Further, *Morand*, a celebrated Surgeon at *Paris*, has contriv'd another for this Use, which the French term *Bistouri gastrophique* (See *Tab. XLV. Fig. 9.*) This I forgot to mention, when I treated of Wounds of the *Abdomen*, which, in my Opinion, is as serviceable in dilating the Aperture of incarcerated Ruptures, as in these: The End is introduced into the *Abdomen*, as far as [B]; then taking hold of the Handles [C C], as a Pair of Scissars, and elevating the moveable Arm [D], which is sharp like a Knife, in the superior Part E E, the narrow Aperture is enlarged, so that the Intestines can be restor'd. Besides, *Le Dran*, another famous Surgeon of *Paris*, has lately invented and contriv'd a kind of latent Incision-knife, which I have exhibited *Tab. XLV. Fig. 10.* In *Fig. 10.* you have it inclos'd, and conceal'd; in 11. open, and divided into its component Parts. The Part A A, *Fig. 10.* is pass'd into the Aperture, which is to be dilated; then the Handle K is taken into the Right-hand, and the Plate F properly depress'd with the Thumb: Thus the Knife, hitherto conceal'd in the Groove A A, is elevated (see *Fig. 11. C D*); so that the Top D remains conceal'd in the Cavity, that it may not hurt or prick the Intestines; and the Part C enlarges the narrow Passage, through which the Intestines may be restor'd. You will find a farther Explanation of this Instrument (which the French call *Bistouri Herniaire de Mr. Le Dran*) in the Explanation of *Table XLV.*

When the Intestines are thus replac'd, the Wound, being held, and press'd by an Assistant, should be join'd by the knotted Suture,

Suture, (though the Moderns, as *Garengot* assures us, reject this Suture; and I think, it may be safely omitted, particularly in small Incisions) and bound up, till it is heal'd, in the manner directed in a *Gastrostomy*. After the first Dressing, the Patient must keep himself quiet, and the Bandage must remain for three or four Days, unless any extraordinary Symptoms require the contrary, for this will promote the Agglutination; and, after the first Opening, it may be dressed every Day, as in other Wounds of the Belly: And, when the Wound is perfectly healed, a proper Bandage is still necessary, to form a strong *Cicatrix*, and prevent a Relapse. But more adult and old Men, unless they wear a Truss all their Lives, are never secure; while Infants, Boys, and young Men, are, for the most part, completely cured.

That you may not be ignorant how far our Method of Cure agrees with *Petit's*, I will give you a short Account of it, out of *Garengot's Operat. Chirurg.* The Integuments of the Tumor, together with the Fat, are held up, partly by the Surgeon, and partly by his Assistant; and first a rectilinear, then a transverse Incision is made with a Knife; then the Wound, after dividing the four Angles, is enlarg'd by the Director and Knife, or the Introduction of the Fingers; after this, a *Raisseau*, somewhat resembling an Intestine, appears, which must be cautiously removed by a crooked Knife. Next the Membrane, which is the *Sacculus*, after an Incision of the emergent **Raisseau*, which contains the fallen Intestines, is elevated, and a small Incision made; the Efflux of the Lymph will demonstrate, that the Operation is rightly performed. Afterwards, the middle or fore Finger is passed into the Wound, in such a manner, that, by the Direction of it, the *Sacculus* may be cut cross-ways with a crooked, blunt Pair of Scissars, (See *Tab. XXII. Fig. D*). When there appears any preternatural Excrescence, (which is frequent in the Cawl) united to the external Parts, whether it consists of Flesh or Fat, it must be taken off; if then the *Omentum* is not fallen beyond the Lips of the umbilical *Annulus*, there is room for Hope; but if it is, and appears very large, the Disorder seems desperate, whether it be replaced, or removed, so that, though the Intestines are restored, Death ensues. However, they ought to be returned, if the Aperture is large enough; and, if not, you may introduce a Knife, with a Button, somewhat sharp, (see *Tab. V. Fig. 3, 4, 5*.) and carry it upwards in an oblique Direction, towards the Left Side of the Belly, till you have dilated it sufficiently. When the *Hernia* is not large, *Petit* takes another Method; he, in some measure, enlarges the Aperture of the Belly, and restores the Intestines with the *Sacculus* entire. But he does not sufficiently explain to us his Manner of doing it without Incision.

Having done this, *Petit* proceeds to the Bandage, and Agglutination of the Wound; which I will describe to you in the exactest manner: He orders, without any Suture, a large Linen Pellet (*Gal. Pelote*) dipt in the White of an Egg, and tied with a Thread, to be laid on the Aperture, thro' which the Intestines were fallen, then he fills the rest of the Wound with small twisted Linen Cloths, and Rolls of Lints (*Gall. Bourdonnets*); and, having anointed the adjacent Parts with Oil of Roses, he covers it carefully with two or three Compresses, each larger than the inferior, and applies the Napkin and Scapulary: Next Day, he removes the Pellet, tho' it adheres firmly to the *Foramen*, and Lips of the Wound; and asserts, that scarce any Traces of either are left: Afterwards he fills the Wound again with Cloth and Lint; but leaves us in the Dark, as to the manner of Healing: Nor are we better acquainted with *Garengot's* Reasons for preferring a double and transverse Incision to the common Practice of a single and rectilinear one, when that will suffice: He likewise gives us *Le Dran's* Observation, where, in a Rupture of this kind, the *Sacculus* being open, a Cell of the Colon only was incarcerated, which occasion'd a Vomiting. But, during the Process, especially at first, Bleeding, Purging, or Clysters, and a regular Diet, is absolutely necessary.

Dionis, in his Book of Surgery, says, *That an unsightly Prominence of the Navel never proceeds from too great an Expansion of the Peritonæum*; but, always, rather from a Rupture of it; and, therefore, the Intestines are to be found immediately under the Skin, and not contain'd in any *Sacculus*. But this Error may be confuted, from my Annotations on that learned Author, and the following Observation: I saw, when I was Professor of Physic and Surgery at *Altorf*, with *Carolus de Colonia*, a Surgeon of *Norimberg*, a tall fat Gentleman, whose Navel was very prominent (see *Tab. XLV. Fig. 12*); A A A A denote the Extremity of the external Skin in the Navel, like a large *Annulus*: In this a thin pellucid Membrane, or, more probably, the *Peritonæum*, was comprised, thro' which the Intestines B B B manifestly appear'd, in the living Subject. As long as he wore the Truss, with a large hard Pillow, (see *Fig. 6*.) they remain'd in their natural Position; but, upon the Removal of that, they, with the thin Membrane, contain'd in a sort of Bag, descended, and formed a Tumor beyond the

Navel. I do not know, this has occurred to any one else in Practice; tho' it is beyond all doubt, that *Palsyn* and *Garengot* differ, in their Sentiments, from *Dionis*, and agree with me, that there is always a Bag, or a preternatural Distension of the *Peritonæum*, in these Ruptures, which contain the Intestines. In the Interim, we should not condemn *Dionis's* Opinion, as absolutely false, since he declares, it is founded on Observations made both on dead and living Subjects; but, rather, think such Cases may have been; for it is certainly best to be circumspect in the Cure of an Umbilical Rupture, and not rashly cut the Intestines instead of the Bag, or, as *Garengot* terms it, the *Raisseau*: And, indeed, I am convinced, from Experience, that *Dionis* had some Foundation for his Opinion; and *Garengot* himself, *pag. 313. 367. Tom. I. Chirurg. Edit. II.* shews, that a Rupture of the *Peritonæum* sometimes attends these *Herniæ*.

EXPLICATION OF TAB. XLV.

Fig. 1. Exhibits a triangular-pointed Steel Needle, inserted in a Tube; it is called a *Trocar*, destined for perforating the Belly of a dropsical Person, and, chiefly, extracting the Water out of that and the *Scrotum*. A is the Handle, B the triangular Point, C the Tube into which it is inserted.

Fig. 2. Represents it alone, without the Tube, made of Iron or Steel. A C is in the Handle, B C the polished Needle, B the triangular Point.

Fig. 3. Shews the polished Tube by itself, generally made of Silver, thro' which, after extracting the Needle, the preternatural Humours flow: A A is the Part remaining in the Belly, where the Needle is taken out, B B the Plate, and especially the concave Part of it, with two Apertures, into which you may transmit a Thread, and, if Occasion requires, tie the Tube, to prevent its slipping into the Belly: C shews a kind of elliptical *Foramen*, on each Side, that the Liqueur may enter, not only into the extreme Aperture, but, likewise, into these lateral ones: D is the Aperture, in the middle of the Tube, into which the Needle is introduced; and, when the Belly is perforated, upon the Extraction of that, the Water is discharged through it.

Fig. 4. Is *Petit's* Tube, for the same Use: A A the cylindrical Part, with a Slit almost the whole Length, into which, he thinks, the Water insinuates itself easier than into the other. B the Plate, with an Aperture, into which the Steel Needle is introduced, and through which the Liqueur is emitted: C C another Plate, hollowed like a Pipe, through which the Water commodiously flows into the Vessel under it.

Fig. 5. A A A A exhibits an Instrument, resembling a Cross, for repressing a Gibbosity in Children, which is applied to the Back; so that the longer Part lies on the *Spina Dorsæ*, the shorter on the *Scapulæ*: B B is an Iron Ring, which, being cover'd with Leather or Silk, is put round the Neck, and, by a proper Loop, put thro' the Apertures a a, may be made more lax or tight, as Necessity requires. C C two Leather Strings: The Left hangs down, that you may see the Holes at the Bottom, thro' which the Strings are passed: D D are the Strings; that on the Left untied; the other represents the Manner of tying it about the Shoulder: E E the Bandage passed thro' the Apertures F, which fastens the lower Extremity round the Belly.

Fig. 6. Represents the Bandage for Umbilical Ruptures: A is the Steel Truss, cover'd with Leather or Fustian, with some Cotton, or boiled Hair, under it: This is put upon the Navel, having first laid on a Plaister and Compress: It may have a Button in the Middle. B B B the Belt to encompass the Waist, made of Leather or Fustian: C the Buckle, which fastens the Belt: D the Truss, with the Button in the Middle.

Fig. 7. Another Kind of Instrument, for the same Use, made of Steel or Brass Wire, and bent in a peculiar manner. A the Part laid on the Navel; B B B that which surrounds the Abdomen; C C that which is fitted to the Inguen; this compresses the Belly and Navel by its own Elasticity: It should be cover'd with Leather or Cotton, and the Part stuffed with boil'd Horse-hair, or some other proper Material, and the Whole suited to the Size of the Patient.

Fig. 8. Is the Director, for a proper Dilatation and Incision of an incarcerated Rupture. A A the Plate, resembling an Heart, to keep the Knife from wounding the Intestines.

Fig. 9. *Morand's* gastrostrophic Incision-knife, for the same Use. A shews the obtuse Part, which is introduced into the Abdomen, thro' the Aperture: B the Hinge, which joins the two Parts of the Instrument: C C the Handle, for the Fingers: D the interior Part of the moveable Arm, somewhat round or obtuse: E E the superior or acute Part, by the Elevation of which, the narrow Aperture is enlarged.

Fig. 10. and 11. Represent *Le Dran's* Incision-knife for Ruptures. The first shews it joined together, the other separate,

* Neither I, says *Heister*, nor any one I have conversed with, understand this Word *Raisseau*; nor is it in any French Dictionary: For tho' *Raisseau* signifies a Ramulus, yet, after the most diligent Search, I could never discover, in any umbilical Rupture, any Ramulus, resembling an Intestine; and, therefore, with *Garengot* had been more explicit. But if, for *Raisseau*, we read *Reseau* or *Reseau*, which Words are in the Dictionaries, and signify a Net, or little Net, it is still as unintelligible to me, how an Intestine can appear like a Net: since there is the widest Difference between them.

that the internal Structure may be better conceiv'd: A A the excavated Director, in which the small Knife is concealed: B the longitudinal Half of this Knife: D the End, which the Author calls a Swallow's Tail; this is moved in the Groove, to prevent the Extremity from slipping out: E E the Lever, which elevates the Knife: F the Handle of the Lever, which, by a Pressure of the Thumb, elevates the inferior Part of the Lever. G an elastic Plate, by which the small Knife, after the Operation, is return'd into the Groove, and concealed. H H the two lateral Wings, which cover and defend the Intestine: I I two erect Wings, which include the Lever: K the Handle of the whole Instrument: L the Screw upon which the Lever turns.

Fig. 12. Is an Umbilical Rupture, remarkably large: A A A A shew the Skin of the Navel, very much distended, in the Shape of a Ring, above two Inches Diameter, and connected with a thin Membrane, undoubtedly the Peritonæum, through which the Intestines B B B might be seen.

Of other HERNIÆ, particularly the Ventral.

We have already said, that a Descent of the Intestines and Omentum, or either of them, occasioning an unsightly Prominence of the Navel, is termed an *Omphalocele*, or Umbilical Rupture; and this Name is diversified, according to the Part affected. So, for Instance, when the Intestines or Omentum descend into the *Scrotum*, it is called *Scrotal*; when into the Groin, *Inguinal*; if they fall into the external Part of the Thigh, *Femoral*; if this Accident happens in any other Part of the Belly, we denominate it *Ventral*; which is observ'd to be sometimes in the *Linea Alba*, as well above as below the Navel. Ruptures are also divided into true and spurious: True, when the Intestines or Omentum descend; spurious, when neither of them does, but the Tumor arises from some other Cause, as an *Hydrocele*, *Sarcocoele*, and *Variocoele*. As for what belongs to the ventral *Hernia*, most Authors, of the last Age, have entirely omitted it, or spoken very slightly of it, tho' it was known to, and described by the Antients, and I have seen several Instances of it: I shall, therefore, be very particular in my Explication of this Disorder. They differ greatly, for some are small, some large; some on the Right Side, some on the Left, and others in the Middle; some easy, others difficult, to be return'd, and, as we said of the *Omphalocele*, attended with excessive Pain; these we call incarcerated.

As for the Causes of these Disorders, there are two Opinions; *Dionis* thinks, a ventral Rupture does not arise so much from a Distention, as from a Bursting, of the interior Membrane of the *Abdomen*, and is, therefore, occasion'd only on a sudden, and by a very great Violence. On the other hand, *Garengoor*, with good Reason, attributes it, not only to a Bursting of the *Peritonæum*, and a Laceration of it, by any violent Hurt of the Belly, but, much oftener, to a Separation of it, by any Cause, to such a Degree, that it never grows together again: So that the Muscles, and, principally, the transverse Muscle of the *Abdomen* is entirely, partly, or, in some of its Fibres, relaxed, burst, or, by some other means, so far injur'd, that, upon any violent Motion or Force, the Intestines protrude and separate the *Peritonæum*.

A ventral Rupture, particularly that which may be easily return'd, is known, generally, by these Symptoms: The Skin, in some Part of the Belly, is indecently puffed up, like a Tumor: This yields to the Pressure of the Hand, and retreats into the *Abdomen*, but, upon the Removal of the Hand, appears again, with some Noise. Upon Coughing, Holding the Breath, or Straining, as is common at Stool, the Tumor grows surprisngly hard, and has the Appearance of distended or inflated Intestines, tho' they seldom come out but one after another, which causes an insensible Increase of the Tumor, tho' it was small at the Beginning. When this Rupture is incarcerated, it has all the Symptoms of an *Hernia Umbilicalis*; and every Age is subject to it, Adults, as well as Infants and young Men.

It requires a particular Care, to distinguish this from an Abscess, lest you should inconsiderately treat it in an improper manner, and Experience shews us, that many have been deceived: I myself knew a Surgeon, who would have made an Incision into a Rupture, had not I dissuaded him from it, as if it had been an Abscess. In Adults, and Men far advanced in Years, it is very difficult to cure, and so troublesome, that they are almost incapable of any Business; and even tho' you should cut it, you can scarce succeed, as the *Peritonæum* is quite defective. Moreover, when the Aperture, through which the Intestines are fallen, is too narrow, so that they are greatly compressed by it, there is imminent Danger, as in an umbilical, inguinal, or scrotal Rupture, of intense Pains, an Inflammation, Vomiting, even of the Faeces, and Death, from this violent Constriction. A Rupture in the *Linea alba*, either above, or chiefly below the Navel, according to most Writers, is usually incurable; though, since the Place of the Descent is commonly larger than in other *Hernia*, it is often less dangerous.

Though this Disorder is very troublesome, it may be cured, if taken in time; or, at least, mitigated, especially in Infants and young Men; for it is inexpressible what Advantage accrues

from the Use of the Truss (Tab. XLV. Fig. 6); particularly if the Iron Plate A be of a due Size; and kept constantly round the Belly, with a Plaister under it. And even, if the Patients are old, and the Disorder of long Continuance, it will prevent worse Consequences. *Celsus* says, when the Antients attempted a complete Cure, they proceeded thus: "Passing a Needle with two Threads through the Basis, they tied the distended Skin on each Side, as in the Navel, or Uvula; so that what was above the Thread died away." Some cut the middle of the Tumor, in the Form of a Myrtle-leaf, and then join'd the Lips by Suture. But, to confess the Truth, both these Methods seem to me more dangerous than the Truss; for the Operator will scarce be able to refrain from hurting the Intestines, or tying them up with the Skin; and there may be a better way discover'd, or, at least, the old one improv'd upon. When the Intestines, in this Rupture, cannot be replac'd, follow the Rules laid down for an *Omphalocele*. *Garengoor* assures us, that *Petis* did this with Success; for he restor'd a Taylor, in about five Days, to his former Health, without any Aperture of the Bag made by the prolaps'd *Peritonæum*, but only laying it bare, and enlarging the Foramen with a Knife. But if this Misfortune arises from the *Peritonæum*, from an old Wound, by Laceration or Incision, as that never concretes, they are not contain'd in the Bag, but rather are contiguous to the Integuments; therefore this Operation requires the utmost Skill, lest, while we investigate the Bag, we should touch or injure the Intestines with the Knife. Lastly, this Admonition cannot be too often repeated, that Adults, though they are freed from this Disorder, should never leave off the Truss, for fear of a Relapse. *Saviard*, *Obs. Chir.* 59. gives an Instance of a new Species of *Hernia ventralis*, after the *Cæsarean* Section. See *BUBONOCÉLE*.

Of the Descent of the Intestines into the Scrotum, or Scrotal Rupture.

We come now to Tumors in the Scrotum, which proceed from almost the same Cause with the others. In treating of these, we shall shew, in general, what the Disorder is, and the different Species of it; then explain each particularly. We call every preternatural Tumor of the *Scrotum*, a *scrotal Hernia*, and it is either true, or spurious: True when it is occasioned by a Descent of the Intestines or Omentum; false, when the Testicles, or spermatic Vessels are tumified by some Humour contain'd therein, or when any noxious Humour, or Flatus, or some such Matter, distends the Part unnaturally. Under these Genera are several Species contained, and the Name and Method of Cure is diversified according to the Variety of the peccant Matter, which occasions the Distention; for, when the Intestine descends through the *Processus Peritonæi*, we term it an *Enterocoele*; when the Omentum falls, an *Epiplocele*. When the *Scrotum* is distended by foreign Humours, as the Serum, or Water, we call it an *Hydrocele*; when by Blood, an *Hæmatocoele*; if it happens from Wind, *Pneumatocoele*. Farther, if either Testicle is preternaturally increased and hardened, it is denominated a *Sarcocoele*. A Tumor of the spermatic Veins is an *Hernia Varicosa*, *Varicocoele*, or *Circocoele*; and an Abscess in the *Scrotum* is termed an *Hernia humoralis*. Sometimes two of these happen together, and then they are distinguished by a proper Connexion of their Names, as *Enteropiplocele*, *Hydro-enterocoele*. Sometimes there is a *Hydrocele* in one Side of the *Scrotum*, and an *Enterocoele* in the other; an Instance of which I lately saw; and so it is with the rest. Now we will enter upon an accurate Examination of the Nature and Disposition of each.

Of the ENTEROCÉLE.

An *Enterocoele* is a Tumor arising from a Descent of the Intestines through the Ring of the Muscles of the *Abdomen*, and *Processus* of the *Peritonæum*, into the *Scrotum* (See Tab. XLVI. Fig. 3. A B). Some term this an *Oscheocoele*, and perfect Rupture, in Contradistinction to the *Bubonocoele*, a kind of imperfect Rupture, which does not extend to the *Scrotum*. It is manifest this Disorder arises from a vehement Protrusion by the Intestines, and an Expansion of the *Peritonæum*, with the Ring of the Muscles, so that it hangs down in the *Scrotum*. (See Tab. XLVI. Fig. 4. D); or from a Bursting of the *Peritonæum*, which naturally stops the Perforation at the Rings, by some uncommon external Violence, so that the Intestines are forced through that, and the *Processus Peritonæi* into the *Scrotum*. Experience teaches, that the latter Accident does not happen so frequently as the former. *Meigret* says, the *Peritonæum* may be broken by outward Force, suddenly and with great Pain; this is confirmed by others, mentioned under the Article *BUBONOCÉLE*, who have seen it. If a Rupture is caused by too great a Distention of the *Peritonæum*, it increases gradually, and with extreme Pain; in general these *Hernia* infect but one Side, though sometimes they reach both, and for the most part the Intestines descend alone, though they may be accompanied by the Omentum.

As for the Causes of an *Enterocoele*, they are very much the same with those of a *Bubonocoele*, or *Omphalocele*, that is, a violent Fall, Leap, or Blow; a vehement Strain in moving or lifting Bodies,

Bodies; or, lastly, Vomiting or Coughing; and, according to the Diversity of the Cause, the Disorder is formed instantly, or imperceptibly. It appears to the Touch like a Bladder or Intestine distended with Air. At first the Tumor shews itself small, about the upper Part of the *Pudenda*, which, unless prevented at the Beginning, by degrees descends more and more, in such a manner, however, that the Testicle of the affected Side, near the Tumor, may be felt by the Fingers, though sometimes the gradual Increase is so great, that the *Scrotum* hangs down to the Middle of the Thigh, or even the Knees. The other Symptoms of an *Enterocoele* are almost the same with those of a *Bubonocoele*, viz. a preternatural Tumor about the private Parts, particularly in the *Scrotum*, like an inflated Bladder to the Touch, and extending itself from the Ring of the abdominal Muscle to the *Scrotum*, near which the Testicle may be perceived by the Fingers (a): This, when the Disorder is not very great, nor the Part inflamed, sometimes lessens, and sometimes increases; particularly, when the Patient lies on his Back, it spontaneously retreats from the *Scrotum* into the *Abdomen*, or at least decreases, and is then generally without Pain; or it may be repressed by the Hands towards the *Inguen*, or into the Belly, and then it makes some Noise; but upon removing the Hand, or the Patient rising, it returns again with the same Noise. It is increased by crying, Satiety, or carrying a great Weight; but contracted by Cold, and is dilated by Heat. Sometimes the descended Intestines are inflamed or swelled vastly with the Faeces, or adhere to the neighbouring Parts; then they cannot be repelled by the Hands. Upon pressing this Tumor we plainly perceive an inflated Intestine, and a Swelling of the Rings of the abdominal Muscles, and that sometimes increasing, sometimes decreasing, sometimes with a Noise. Whenever, therefore, we find a Tumor can be forced into the Belly, we conclude it is an *Enterocoele*. Men labouring under this Disease sometimes, for the Reasons already given, feel Pains not unlike the Colic, either more or less violent, in the *Scrotum*, *Inguen*, and *Abdomen*. Some are troubled with a Nausea and Vomiting. When it is occasioned suddenly, and by any violent Force, the Annulus of the abdominal Muscles is often so narrow, that the Intestines cannot be repelled. Consequently there is Danger of a worse, that is, an incarcerated Rupture.

Though we have observed, that an *Enterocoele*, in some Men, and sometimes in pregnant Women, may be supported without any extraordinary Pain; yet that generally increases with the Tumor, so far as to render robust Men unfit for Labour; and, unless they are secured by a proper Truss, there is great Danger, either from Cold, Leaping, Straining, Coughing, flatulent Food, Vomiting, Falling, Passion, and other such or slighter Causes, that more of the Intestines will descend, and bring on an incarcerated Rupture, with other Disorders mention'd under *Bubonocoele*, that is, acute Pains, Vomiting, the Ilia Passion, and Hazard of Death itself. On the contrary, if they defend themselves with a proper Truss, and refrain from violent Motion, young Men may be perfectly restored, and Adults and old Men, as Experience proves, live as long, and, if they are otherwise in a good State of Body, as healthful a Life as others. We must observe, that a Descent of the Intestines with the Omentum, is less dangerous than that of the former only.

If this Hernia is not yet incarcerated, nor the Intestines intercepted, nor united with the external Parts, your principal Care must be both to restore them to their native Situation, and secure them there; and, further, to reunite the distended Annulus of the Abdomen; or rather contract it, so that they may not fall out again. After replacing the Intestines, there are two Methods of uniting*, or rather contracting, the Aperture of the Abdomen, as we have said in a *Bubonocoele*; viz. by binding it with a proper Bandage, or by Section, commonly call'd *κτελο-γυνε*, or Castration, because a Testicle is generally cut out. An Attempt to cure it by Ointments, Plaisters, or any other Medicines, without binding, or by Transplantation, or Sympathy, is vain, at least uncertain, and often superstitious. The best Remedy, therefore, for Ruptures which are recent, inconsiderable, and not incarcerated, is a proper Bandage, as we have describ'd under the Article *Bubonocoele*; for by this, as I have often experienced, not only Infants, and young Men, but Adults, when the Disorder has been of little Continuance, and slight, have been absolutely freed from it, especially if proper internal and external corroborating Medicines, with a suitable Manner of living, have been added†; and if the Patient is old, or the Disease inveterate, these will alleviate it; for by a proper Application of them, the Intestines and Omentum may be contain'd in the Abdo-

men, worse Symptoms prevented, and the Patient execute any Work, wherein very great Strength is not requisite.

Of the CELOTOMIA, or Castration.

I cannot but join with those who condemn the Method of Cure by Castration, which is perform'd, by, first, tying up the *Processus Peritonæi*, and *Spermatic Vessels*, since it deprives the Patient of a Part so necessary to Generation, and he may be treated in a much safer and gentler Method; for Incision is very far from being effectual in these Cases, and, at the same time, throws him into cruel Agonies, and an imminent Danger of his Life. And the Patient, or his Relations, should avoid such a Surgeon more than a Plague, since they must necessarily know, that the whole Art of a Quack consists in getting Money, that it is void of Experience and Judgment, and consequently made up of mere Fraud. It is, for this Reason, incumbent on all Magistrates and Governors, as the Custom of some Countries is, to prohibit all itinerant Empirics the undertaking this pernicious and dangerous Method of Cure, without the Advice and Consent of able Physicians. And, in my Opinion, the Temerity and Cruelty is very extraordinary, which attempts a Remedy accompanied with the most intense Agonies, the Loss of a Testicle, the Danger of Death, and a perpetual Apprehension of a Relapse; for after this Operation, the Intestine and *Peritonæum* have often fallen down, and the Hernia return'd, as *Celsus*, *Cyprianus*, an eminent *Dutch Surgeon*, and my own Experience, thoroughly convince me. Let us, therefore, stick to the old Way of Bandage. See my Dissertation on removing the Abuse of Celotomy, publish'd at *Helmstadt*, in the Year 1728§.

As we think Bandage very serviceable in the Cure of an *Enterocoele*, or *Epiplocoele*, we shall explain how they are to be form'd, and applied. That is best which compresses the Part of the Belly where the Intestine falls down, so that neither the Intestine nor Caul can descend from thence; which is done by fitting it carefully to the Patient's Body. The Industry of the Moderns is very commendable, which has invented and describ'd various convenient and proper Bandages for the Cure of this Rupture, either in one or both Sides. Those which I think most suitable, are represented *Tub. XLVI. Fig. 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15.* and they are made of different Materials; those for Infants and Youths, of thick Linen, or Fustian, stuffed with Cotton, or of soft Leather; those for stronger Men, of strong Leather, or Steel. These Bandages, over a sticking Plaister, being tied round the Body, not only repress the Intestines, and compress the *Processus Peritonæi*, but sometimes unire, or, at least, contract the Coats so, that the Intestines can not fall down again. They should be kept on for six Months at least, and a thin Diet should be observ'd, with Abstinence from Leaping, Riding, and all violent Exercises, taking, at the same time, gentle Purges, and strengthening Medicines, lest the Intestines, being too much inflated, should descend again through the Muscles of the Abdomen. This Method seldom fails of curing a Patient under twenty Years old; nor ought we to despair, if he is thirty or forty, when the Disorder is recent, and the Surgeon brings immediate Assistance. If he is older, we can never expect a perfect Recovery, and both the Patient and Surgeon should content themselves with the Relief that comes from a proper Bandage, and the Security of preventing a second Descent of the Intestine and Omentum: For, I think, after what has been said, nobody will have recourse to the Incision-knife.

Celotomy, that is, Castration, is another Method us'd by Quacks, and abhor'd by all regular Surgeons, 1. From the acute Pain attending it. 2. From the Danger of Life. 3. From the irreparable Loss of a Testicle. 4. From the continual Apprehensions of a Relapse. And these Reasons are more prevailing, if the Patient is young. However, some Sections of an Hernia may, and ought to be undertaken, when the Intestines cannot be repel'd, and a Bandage, or other Remedies, are ineffectual; as when the fallen Intestines are united, either with the *Scrotum*, or the *Processus Peritonæi*, in such a manner, that they can by no means be forced into the Belly, but impede the Patient from doing his Business, and threaten him with the Calamity of an incarcerated Rupture. But Mountebanks, without this Adhesion of the Intestines to the neighbouring Parts, and when they may be repel'd, have frequently perform'd this Operation, both on Infants and old Men.

(a) It seldom happens, as *GARENGHOT* writes, that the Testicle is so far immerged in the Intestines, that it cannot be felt, because it is contained in a peculiar Cover.

* Some assert this Aperture is never reunited, only contracted, the Truth of this can be learnt only from Experience.

† About the End of the last Century, a *Frenchman* (*Prieur de Cabrier*) boasted, that he had found an Arcanum, which would cure any Rupture, without Bandage or Section. *Leavis XIV.* oblig'd him to discover it, for a Sum of Money; and then made it public for the Good of Mankind. It consisted of Spirit of Salt, with a certain Quantity of red Wine to be taken often every Day. See *Verdur, Lib. de l'Acide*, p. 24. *Valentini Polygraph. Exot.* p. 89. *Dionis, Chin. Cap. de Hernia*: However, this did not prove effectual, without any Bandage.

§ Some think the Loss of a Testicle entirely disqualifies a Man for Generation; but I know this to be an Error, from many Instances; however, without doubt, a Man with two will succeed better, as we see better with two Eyes than one.

The Patient is laid on his Back upon a Table, with his Head reclining, and his Hips elevated, and either bound fast down with Cords, or his Head, Hands, and Feet, held by strong Men so fast, that he can neither turn, nor move himself. Then the Operator protrudes the Intestines into the Belly, and then orders his Assistant to compress the Aperture of the Abdomen firmly with his Hand; then he makes an Incision, about three or four Fingers-breadth long, according to the different Size of the Body, through the superior and lateral Part of the Scrotum, with the subjacent Fat, drawn upwards in the manner directed for the Cure of a Bubonocoele, and for cutting Fontanels and Setons; he then separates the Process of the Peritonæum, now bare, and the Testicle, from the neighbouring Parts, with his Fingers, and tears it out of the Scrotum with inexpressible Torment to the Patient; then he draws out the Process, as far as he judges proper, and binds it round the upper Part with a Silk or Linen Ligature as in the Extirpation of Tubercles, tying up at the same time the seminal Veins and Arteries, to prevent an Hemorrhage upon the Application of the Knife: Others separate the Process of the Peritonæum from the neighbouring Parts with their Fingers, and tie it with a String, before they extract the Testicle; and to keep the Testicle from the Sight of the Spectators and Relations, conceal it in one Hand; and afterwards, with all the Dexterity they are Masters of, cut off whatever is ty'd, and the Testicle, leaving a Finger's-breadth below the Bandage; then steal away the Testicle, and fill the Wound with Lint, and, laying a Plaister and Compress over it, bind it up. When the whole Operation is performed, they put the Patient into Bed, as if he was still possessed of his Testicle. The Dressing is renewed for several Days, with Oil of Eggs, of St. John's-wort, or some other vulnerary Oil, till the Ligature of the Process of the Peritonæum, and spermatic Vessels, loosens and falls off spontaneously, which happens generally on the fifth, sixth, or seventh Day. When the Ligature is fallen off, they heal the Wound with balsamic Medicines, and then they have perfected their Cure. In the mean time, if they are not Blockheads, they prescribe Rest for twelve or fourteen Days, and the Diet usual after great Wounds, or chirurgical Operations; and they ought to continue this, till the Patient dies, or recovers. But every one, of the least Experience, knows, that most Men, after the Operation, are seized with a Fever, Spasms, and Convulsions, especially if the Operator is not very dexterous, or the Diet neglected: Besides, those, who are thus cured, frequently relapse into their old Disorder. Some Surgeons, particularly the *Italians*, as appears from the Writings of *Fabricius ab Aquapendente*, and *Scultetus*, attempt a Remedy still more inhuman; for, before they tie up the Process of the Peritonæum, they pass a large Needle through it with coarse waxed Thread, and, after cutting off the Testicle, cauterize the Wound of the spermatic Vessels with a hot Iron.

The third and less cruel Method is termed the *Sectio*, or *Punctura Aurea*, exactly described by *Paré* and *Geiger*, contrived to prevent the Loss of a Testicle, and other ill Consequences. It is thus: The Patient is laid on his Back, the Intestines are return'd, as we have already shewn, and, by an Incision, the Process of the Peritonæum is laid bare, and the upper Part of it, near the Annulus of the Muscles, ty'd with a fine Gold Wire, the Testicle still continuing in its proper Situation. This Thread is wound gently round the Process of the Peritonæum, with a Forceps, in such a manner, that the seminal Vessels are insensible of any Compression, and yet the Process so straitened, that the Intestines cannot descend into the Scrotum. But this is disapproved of by myself, as well as others; for when the Bandage is lax, the Intestines easily depress it by their own Weight; and, when it is tight, the spermatic Vessels likewise are compress'd, and the Testicle is necessarily corrupted, not to mention the Difficulty of curing the Wound made in the Inguen, and the Fistula, a usual Attendant upon this Operation, which must proceed from the continual Irritation of the Parts, by the Gold Thread. Hence I conclude, that skilful Surgeons will always depend upon the Bandage for a Cure of this Rupture, as long as the Intestines can be return'd.

Mr. *Jo. Douglas*, a celebrated Surgeon, at *London*, communicated to me the Method of one *Littlejohn*, without Incision. First he returned the Intestines into the Belly, then applied a corrosive Medicine above the Os Pubis, to the Place where the Intestines descended (and he recommends Oil of Vitriol) in such Plenty, that it might soon penetrate the Skin; for the deeper the Eschar, the more effectual the Remedy: Therefore he orders it to be repeated for three or four Days, that the Skin may be the more corroded; and, upon every fresh Application of the Oil of Vitriol, he removed the old Eschar, that it might penetrate the better; then he dressed the Wound with a Plaister of Paracelsus and Oxycroceum mix'd in equal Parts, and spread upon Leather, and secured it with Compresses and Bandage. This Plaister alone, he affirms, is sufficient to separate the Eschar, and cure the Ulcer. If there was any Excrescence of spongy Flesh, he ordered it to be eaten off with the Lapis Internalis. The Patient must observe a spare Diet, and refrain from Exercise, till the Wound is cured. After which, he lays the Rupture-plaister on the Cicatrix, and applies a proper Bandage. This

Bandage must be worn, till the Cicatrix is strong enough to prevent a Relapse. King *George I.* out of his Princely Liberality, gave Five thousand Pounds for this Arcanum, which was soon after despised by the *English*. See *Henslow's History of Ruptures*, and *Douglas's Syllabus of Chirurgical Operations*.

Sermes, a Surgeon of *Amsterdam*, and an old Acquaintance of mine, in his Treatise of *Lithotomy*, written in *Dutch*, Anno 1726. gives another Method of curing these Ruptures, without the Loss of a Testicle; which he confesses not to be his own Invention, but what he learnt from some, who were Eye-witnesses of it in *Russia*. A *Russian Surgeon* laid such Patients on a Bench upon their Backs, and secured them by the Assistance of strong Men; then he made a rectilinear Incision, somewhat long, into the Groin, as is usual in Celotomy, and searched for the Process of the Peritonæum, opened it with a Knife, and there investigated the Sack of the Rupture, which contained the Intestines (see *Tab. XLVI. Fig. 4.*). When he had found it, he extracted it out of the Wound with some Violence (*undoubtedly, after loosening it from the Parts, to which it is connected*); and ty'd it with a strong Thread, as near as he could, to the abdominal Muscles, (see *Fig. IV. BB*) and left the Thread hanging out of the Wound; he then dressed the Wound, as usual, till the Thread fell off spontaneously. Thus he cured many, without any Injury to the Testicle, or spermatic Vessels; and not one, as they solemnly affirm, died. *Sermes* approves of this Method in Adults, when the Intestines cannot be contained in the Belly by Bandages, and the Patients undergo great Pain and Uneasiness. But the Certainty of this can only be confirmed by Experience. However, this is sure, that, if it succeeds, it is preferable to the common Way, because the Testicle, and other Parts, are kept entire by it. And we must further learn from Experience, whether Ruptures, thus cured, do not return as easily, as those cured by the vulgar Method, when the Sack and spermatic Vessels are ty'd together; for I see no Reason, which can hinder it more in one than the other. And this is the more to be dreaded, when the Ruptures are large and inveterate; and, consequently, the Place of the Descent greatly expanded and debilitated. Lastly, we must observe, that a certain *Swiss*, one *Frestage*, in the Year 1721. described this Method, as well known to his Father, a Surgeon at *Strasbourg*; and the Son, in his Dissertation, says, it was practised by his Father successfully, with this Difference, that he perforated the Saccus with a Needle and Thread, before he made the Ligature. Thus, also, in the Year 1730. a Dissertation appeared at *Keil in Holstein*, wherein the Author *Jor. Henr. Schuckman* affirms, that he had practis'd this Method with good Success, and commends it greatly.

Some, for the Preservation of the Testicle, do not tie up the Process, and spermatic Vessels, but, repressing the Intestines and Omentum, scarify the Annulus and Skin, then bind it up properly, for the Promotion of a firm Cicatrix; and thus they declare they have cured many; particularly if they wore the Bandage long enough afterwards. But my Opinion is, that this Method is more effectual in Infants and Boys, than Men advanced in Years.

If an Enterocoele is so large, that the Intestines cannot be return'd, principally if it happens from their Adhesion to the Process of the Peritonæum, Annulus, Scrotum, or lastly to the Testicle, and exposes the Patient to the Danger of the Iliac Passion, then all Bandages are absolutely ineffectual, and rather excite or increase the Pain, Inflammation, and other dangerous Symptoms; nor are Medicines of any Service; but our sole Hope of averting the Danger of an untimely Death, and the Iliac Passion, and restoring the Patient to his former Vigour, is in the Knife; for I know of no one yet, who has contrived a better and milder Method. When, therefore, this Operation must be performed, place the Patient, as before directed: You must first divide the Integuments, for Reasons already given, till the Process of the Peritonæum, and separated Cover of the Intestines, appear to your View. Having done this, separate the Intestines from the adherent Parts, with the utmost Caution, either with a small Knife, your Finger, a Pen, or some such Instrument, always conducting your Knife, in such a manner, as, if Cutting is unavoidable, you may cut any thing rather than the Intestines, and, when they are separated from the adhering Parts, force them into the Belly. This must be done too, if you unexpectedly meet with an incarcerated Rupture, adhering to the external Parts. Lastly, having restored the Intestines, you must not only heal the Wound, but apply the Bandage, called *Sputa*, to prevent a Relapse.

An incarcerated ENTEROCOELE.

If the Stricture of the Intestine is so great in an Enterocoele, that it cannot be returned, and consequently becomes an incarcerated Rupture, and Cataplasms, Bleeding, Clysters, especially one of the Smoke of Tobacco, are ineffectual, you must apply the Knife, to preserve the Patient, as we directed in the incarcerated Bubonocoele. And, for the better Illustration of this intricate Disease and Operation, you have *Mauchart's* Figures, in *Tab. XLVII. Fig. 1, 2, and 3.* taken from his Dissertation on incarcerated Ruptures of the Scrotum; and there you will find them

them explained. In the mean time, I beg leave to add the following Observations to what has been already said.

When the Rupture is slight, and the Intestine reducible without dividing the Coat of the Saccus, then the superior Parts of the Whole should be exposed to View by Incision; for by this means the Intestines may be safely returned; then proceed as in a Bubonocoele. But, (2.) when the Disorder is of a worse kind, or the Intestine and Omentum adhere to the neighbouring Parts, or a large Quantity of Humour is contained in the Saccus, the preceding Method is not effectual, but you must divide the Saccus, and return the Intestines; but, if this is impracticable from a Stricture at the Ring, dilate that by Incision, and, having freed the Intestines and Omentum from their Adhesion, restore them to their proper Situations, as before directed. But the Intestines must be treated with so much Tenderness, as rather to divide the Part, to which it adheres*, even if it be the Testicle itself, than injure its own Coats†. In the next Place, the Sacculus is to be freed from its Adhesion, and ty'd with a waxed Thread three or four times doubled about the superior Part, near the Ring, the Part of the Sacculus below the Ligature is to be extirpated, and the Wound dressed, as in other such Cases. After the Thread is fallen off, there is a sort of Tubercle, or firm Cicatrix, formed, which, being agglutinated to the scarified Wound of the Abdomen, retains the Intestines securely, and prevents a Relapse. But be very cautious of binding the spermatic Veins and Arteries. (3.) If the epigastric Artery is divided in this Operation, lest a Profusion of Blood should be an Impediment to you, let an Assistant press and keep it close to the Inguen, with a Roll of Lint, either dry, or dipt in some Astringent; or tie it up with a Needle and Thread. (4.) When the prolaps'd Intestine is so distended either by Flatulences or Faeces, that it cannot be commodiously reduced, nothing, to many Surgeons, appears more salutary and conducive to the Reduction of the Intestine, than gradually drawing out of the Abdomen the Parts most adjacent to it, and to press into these the Flatulences and Faeces contain'd in the Part before prolaps'd; and thus gently to return the gradually-lesser'd Ducts of the Intestine. But lest this difficult Extraction and Depression of the Intestine should weaken, or entirely rupture its Parts, which are already too much debilitated, I think it more expedient by an Incision, to be made in the manner above-describ'd, to enlarge the Perforation of the Abdomen, as much as shall seem necessary; and then to replace the prolaps'd Intestines. As for the Measures to be afterwards taken, they are the same with those used in an INCARCERATED BUBONOCELE; which see. (5.) When the Mesentery is found prolaps'd along with the Intestines, then, according to the Observation of Mr. Petit, the former is to be return'd before any Attempt is made to reduce the latter; for, unless this Caution is observ'd, the Intestines almost always fall down again. On the contrary, when the Omentum is fallen out along with the Intestines, the latter are always to be replac'd before the former. (6.) If, with the Sacculus of the Peritonæum, the Intestine is also wounded, Suture must be us'd, in order to join the Intestine to the Wound of the Abdomen. As for the other Measures to be taken, they are the same with those us'd in Wounds of the Intestines. See ABDOMEN. (7.) When the Intestine is found corrupted, the corrupted Part is to cut off, and the sound Part, by Suture, join'd to the Wound of the Abdomen. (8.) It sometimes happens, that the Bladder, especially in pregnant Women, and those labouring under a Suppression of Urine, falls thro' the Ring of the abdominal Muscles. When this Accident happens, the prolaps'd Part of the Bladder is to be replac'd in the same manner we have directed for the Reduction of the Intestines. (9.) After the Operation is perform'd, the loose and superfluous Parts of the Skin of the Scrotum are to be cut off with a Pair of Scissors; for thus a closer and stronger Cicatrix is form'd, by which means the Return of the Hernia is the more powerfully prevented. And, lastly, Compresses are to be apply'd to the Scrotum, and secur'd by a Bandage proper for suspending the Scrotum.

Of an EPIPOCELE, or Descent of the OMENTUM.

A Tumor arising from the Descent of the Omentum into the Process of the Peritonæum, or Scrotum, is termed an Epiplocele. The Diagnostic of this Distemper is somewhat difficult; however, we may conclude it to be present, when we find an unequal, soft, and slippery Tumor, not greatly increased by holding the Breath, or straining for a Stool, about the Process of the Peritonæum, or sometimes extending from them to the Scrotum; upon a Pressure of the Fingers, there is no Noise, nor is there any such Hardness, or Inflation, as we observed in an Enterocoele. Sometimes the Omentum may be return'd, sometimes it adheres so firmly to the neighbouring Parts, or swells so excessively, that it cannot. I found an Instance of both these Cases in the

Dissection of a Man after his Death; though some deny, or doubt the Reality of these Herniæ. The Tumor is not so large or dangerous in an Epiplocele, as in an Enterocoele; but the Patient may, with little Pain, and few Medicines, transact his Business; and this, indeed, seldom happens, as the Omentum in general is so small, that it cannot reach the Process of the Peritonæum, much less descend into it. Some, indeed, have mistaken a Tumor of that Part from an extraordinary Distention of the Membrana Adiposa in that Part, for an Epiplocele. I learnt formerly from *Ruyfch*, and have since read in *Dionis* and *Garengot*, that there have been Examples of an Epiplocele, exactly resembling an Enterocoele, not only in the Symptoms, but likewise in the Consequences and Danger; so that an Incision has been found necessary, tho' nothing but the Omentum afterwards appear'd to be fallen down.

In the Cure of an Epiplocele, after returning the Omentum, if that is practicable, apply a Bandage proper for Ruptures, as in the Inguinal or Scrotal Rupture: If the Omentum cannot be reduced, and yet the Patient suffers no great Pain, it is better to refrain from the Operation, than torture him by a Remedy worse than the Disease. But as soon as the fallen Omentum swells, and induces an Inflammation, Pains, Fever, and Vomiting, which is common in incarcerated Ruptures of the Intestines, you must have recourse to the Knife, as we advised for an incarcerated Hernia of the Inguen or Scrotum; always observing, not to reduce the thick corrupted Part of the Cawl, but tying it with a Thread, to cut it off, and only return the sound Part, as we ordered in Wounds of the Abdomen; or you may wait for the spontaneous Separation of it, without a Ligature. See many remarkable Observations on this Disorder, in *Le Dran's Chirurg. Tom. 2.*

When the Intestines fall down, together with the Omentum, it is term'd an Enteropiplocele, but it is scarcely discernible from a simple Enterocoele. But the Distinction, indeed, is very immaterial, since they are both attended with the same Dangers, and require the same Cure. When the Tumor in a Ramex now-and-then vanishes or decreases, leaving only a small soft Swelling, we may, with great Probability, conjecture there is an Enteropiplocele; but it is manifest, this is less dangerous than an Enterocoele, inasmuch as the Fat prevents the Intestines from being compressed by the Annuli of the abdominal Muscles, as they would have been, had they descended alone. In the Cure of this Disorder, the Surgeon should first reduce the Intestines and Omentum; and after the Agglutination of the Wound, secure them with a Bandage, as for an Enterocoele.

Of SPURIOUS HERNIÆ.

A SARCOCELE.

We have already said, that Tumors of the Scrotum are call'd *spurious*, or *false*, when neither the Intestine nor Omentum falls down, but they proceed either from a Scirrhus of the Testicle, or Humours collected therein, or a Swelling of the spermatic Vessels. And it is peculiarly term'd a *Sarcocele*, when the Tumor of the Testicle is remarkably hard, and like a Scirrhus, or when there is a preternatural Excrescence of Flesh in it, which is attended with acute Pains, and sometimes exulcerates, and, by degrees, becomes cancerous. We may immediately distinguish between an Inflammation of the Testicle, and a Sarcocele, because the latter is very slow in its Progress, and, at first, gives but little Pain; whereas the former, as in all Inflammations, is quick in its Progress, and begins with violent Pains and Heat. This Disorder has many Causes: For, when the Testicle is tumefied with any Degree of Hardness, we ascribe the Sarcocele to the same Origin which produces a Scirrhus. If there is an Excrescence of Flesh, it is attributed to a Contusion, or some such external Force; though I once attended a Patient, labouring under this last kind, who never remember'd to have felt any external Violence. The Size is various, and, in the Opinion of some Surgeons, never larger than an Hen's Egg; though I have cur'd Men, whose Testicles were bigger than my Fist; as a Proof of which I have preserv'd some such in Spirits. The most distinguishing Mark of a Sarcocele is Hardness, and particularly of the Testicle; for other Ruptures are soft, and the Testicle perceptible to the Fingers. I have learnt, both from *Wepfer*, and my own Experience, that, unless the Tumor is timely resolv'd, a Sarcocele will degenerate into a Cancer, or, at least, become very troublesome from its Bulk and Pain, and affect, or entirely take away, the Power of Generation, especially if both Testicles are vitiated. If the Tumor ascends through the Inguen to the Belly, the Attempt of a Cure by the Knife is ineffectual, and attended with Death, because the Corruption has reach'd the internal Parts: It is, therefore, better to refrain from it.

* *Garengot* says, in *Oper. Chirurg. Tom. 1. p. 320. Edit. 11.* that the Testicle is sometimes confounded with the fallen Intestine, but this seldom happens, because it is included in a peculiar Sack.

† Some advise a total Extirpation of the Testicle, if it adheres to the Intestine, but it is better to tear off a small Portion; for such a Wound may, and does often, heal again.

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When a Sarcocoele is recent, it may sometimes be resolv'd by internal and external dispersing Medicines. *Matthiæus, Aquapendente, and Scultetus*, recommend the Powder of the Root of Rest-harrow, giving the Patient one Dram in Wormwood-wine, and applying externally the following Plaister :

Take of Gum Galbanum, Ammoniac, and Bdellium, each half an Ounce ; dissolve them in Vinegar, and add, of Duck's Fat, melted and strain'd, an Ounce and an half ; of yellow Wax, two Ounces ; Oil of Lilies, and the Marrow of an Ox's Leg-bone, each ten Drams : Make a Plaister.

Spread this on Linen, and renew it every Day. *Dionis* recommends a Plaister of the Diabotum Divinum, and that of *Vigo*, mixt, which he has us'd with Success. Some prefer the *Emplastrum Norimbergense*, alone, as a good Digestive ; or mixt with the preceding : Others, the Fomentations directed for the Cure of a Scirrhus. But I am convinced, from long Experience, that internal Remedies are most efficacious, as a Decoction of the Woods, and Mercurial Remedies ; especially if the Patient takes them every Morning, with a sudorific Regimen ; and a Mercurial Purge every third or fourth Day.

When all these Medicines prove ineffectual, and the Tumor and Pains increase, and become very troublesome, and seem to threaten a Cancer, if the Disorder has not reach'd the Annulus, there is but one Remedy, and that a desperate one, to prevent its ascending to the Abdomen, and becoming incurable : This is, to extirpate the tumefied Testicle, or both, if they are affected, with an Incision-knife ; which is term'd *Castration*.

This must be perform'd almost in the same manner as Celotomy by the Empirics ; though we should be more circumspect than the Generality of them are ; nor, after the Incision into the Skin and Scrotum, should the Testicle be rudely and violently torn out, lest it occasion great Pains and Convulsions, but loosen'd with the utmost Tenderness from the Parts to which it adheres, by a Knife, or Scissars, as the Case requires ; first tying the spermatic Vessels near the Inguen or Abdomen, and then dividing them ; this will lessen the Patient's Agony ; lastly, heal the Wound by the usual Method of curing Herniæ. Since, upon the Division of the spermatic Vessels, now much distended, altho' they are tied, yet the Hæmorrhage is sometimes so copious as almost to exhaust the Patient, some, for this Reason, use a double Ligature, one under another ; or, after loosening the Testicle from the Scrotum, only make a Ligature upon the spermatic Vessels, without immediately extirpating it ; but, some Days afterwards, when it decays and putrefies, which is a Proof, that the spermatic Vessels are properly tied up, they divide them ; for then the Use of the Knife is not attended with Danger, or a Profusion of Blood. If the Testicle does not decay, it is plain the first Ligature is not tight enough : You must, therefore, make a second, more tight. *Le Dran*, with good Reason, advises to perforate the Part which is to be tied, with a Needle and double Thread, and afterwards tie up each Half with these Threads, as a more certain way of preventing the Hæmorrhage. *Aquapendente, Scultetus*, and others, after having divided the Testicle, apply a Cautery to the spermatic Vessels, as most conducive to this End : But I prefer the former Method. To cure, then, a dangerous Sarcocoele, which tends to a Cancer, we may, and, indeed, sometimes must, castrate ; for otherwise the Patient will scarcely ever be restor'd to his former Health ; and the remaining Testicle will suffice for Generation. I am sensible, that some loosen the Nerves from the spermatic Vessels, before they bind them up, lest the Ligature should cause Spasms, or Convulsions : But I am certain this is unnecessary ; for I cannot conceive a Possibility of loosening these small Nerves from the spermatic Veins, with which they are so wonderfully interwoven ; to say nothing of the Improbability of Spasms proceeding from the Ligature, when the Nerves, as I just now said, are so very small, and surprisingly intermix'd with the other Parts. As for the rest, lay Lint, or a small Compress, below the Ligature ; then take off the Testicle about an Inch below it.

If there is a painful Excrecence of the Testicle, which Medicines will not disperse, and the Testicle still continues found, it may be remedied, and the Testicle preserv'd, by opening the Scrotum, and cutting off the Excrecence*. But if it has affected the Testicle, the prominent Parts cannot be taken off without violent Torture : Then you must remove the whole Testicle, or some Part of it, in the manner already propos'd. The Skin, likewise, of the Scrotum, which is useless after the Loss of the Testicle, should be extirpated with the Scissars ; for this will promote the Healing of the Wound, and render the Scrotum

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more uniform. We must observe one Thing in regard to the Dressing ; that you first lay on Lint and Compresses, with the Fascia Inguinalis, call'd *Spica* ; next, to mitigate the Inflammation, which generally happens in this Case, apply dispersing Cataplasms ; lastly, heal the Wound with digestive Ointment, and vulnerary Balsam, as after Celotomy. You may see some Observations on Castration in *Tulpius's Obs. Lib. 4. Cap. 32.* and *Saviard's Obs. Chirurg. 125.*

Of an HYDROCELE.

An Hydrocele is a surprising Distention of the Scrotum, proceeding from some Humour ; and, though it gives no Pain, it is very troublesome. This Tumor is as big as an Egg, a Fist, a Head, and sometimes larger ; it usually affects one Side only, though sometimes both. Every Age, young, as well as old, are liable to this Disorder ; and some Children are born with it, or have it presently after their Birth. This pernicious Humour does not always appear in the same Part, tho' it is commonly collected in the vaginal Coat, that is, between the Testicle and the Coat next it, so that the Testicle, as it were, swims in it, and is imperceptible to the Touch ; then it seems to arise from the Erosion or Bursting the lymphatic Vessels of the Testicle ; tho' it is found under the Skin of the Scrotum, as *Celsus* long ago observ'd, especially in new-born Children, or dropical Persons : Then it encompasses both Testicles ; but this is, by some, call'd a Dropsy of the Scrotum, and distinguish'd from an Hydrocele. Some Authors tell us of a preratural Collection of Liquor † in the Process of the Peritonæum above the Testicle ; and farther, that, in the Dissection of a dead Body, they have found a great Quantity, in the Production of the Peritonæum, occasion'd by an intestinal Rupture. Sometimes the Liquor is of a sanguine Colour ; or Blood itself is found in the Cavity of the Scrotum. This was not unknown to *Celsus*, as appears from *Lib. 7. Cap. 9.* We may properly call this an Hæmatocele, or Bloody Rupture, of which more hereafter.

An Hydrocele then may be known and accurately distinguish'd, 1. From a Dropsy of the Scrotum ; for in this a Pressure of the Finger leaves a Pit, as in tumefied Legs ; the Skin is smooth, and the Penis commonly very much swell'd ; whereas, on the contrary, in a true Hydrocele, the Penis contracts, the Skin is rough, and the Finger leaves no Pit. Besides, in an Hydrocele the Tumor never subsides entirely ; and it is soft, unless there is a great Plenty of the Humour ; but then it makes a Resistance like an inflated Bladder tied close. The Veins too in the Scrotum are inflated, and the Humour gives way to the Fingers, and increases the Size of that Part which is not pressed. 2. An Hydrocele is distinguish'd from an Enterocoele, or Epiplocele, principally by the following Symptom : The Lymph encompasses the tumefied Testicle to such a Degree, that it is imperceptible to the Sight or Touch ; but, in the latter, it may be perceiv'd on one Side. 3. Between a Sarcocoele and Hydrocele (the Difficulty of distinguishing of which has misguided many experienc'd Surgeons) this is the principal Difference : The latter often grows to a prodigious Magnitude, and appears (which is the most infallible Sign) like a Bladder distended with Water, while the former is very hard, but seldom of any extraordinary Bulk. Some, I know, advise to take the Patient in the Dark, and place a Candle behind the Scrotum ; for they judge an Hydrocele to be then transparent, and that you may see through it as you may through a Bladder fill'd with Water, in the same Situation. But since this Water, as *Celsus, Ægineta*, myself, and others, have observ'd, is often turbid, and as black as Coffee, or bloody, every judicious Person will easily acknowledge there is no certain Dependence upon this. It is certain, when there is such an Appearance, that there is an Hydrocele ; but any other Appearance will not assure us, without further Reasons, that there is no Hydrocele, as the Humours may be bloody. An Hydrocele is rather troublesome than dangerous ; for the Patient, if it is of any Size, can neither ride nor walk without Difficulty ; and, when it is left within too long, there is Reason to fear the Testicle may be corrupted, and grow callous, and, consequently, a Scirrhus, or Sarcocoele, or Cancer, ensue ; though I have known Persons live to a very great Age, without any ill Consequence, more than the Inconvenience caus'd by the Bulk of it. But, as the Quantity of the Fluid unnaturally contracts the Penis, and hides it under the Tumor, the Act of Generation is render'd very troublesome, if not entirely impeded. Though the Cure of an Hydrocele, either by Medicines, or the Incision-knife, is difficult ; yet young Men are sooner freed from it than old. When it is attended with a Dropsy, remove that first

* *Dionis*, and others, recommend corrosive Medicines, for making a Wound in the Scrotum, and taking off the superfluous Parts of the Testicle, which is often successful ; but the Cure by the Knife seems more safe and expeditious.

† *Wideman, Lib. de Litho & Celotomia*, p. 84. and *Boerhaave, Aphor. Pract. § 1227.* and *Garrigueot, in Chirurg. Operat. and Le Dran, Tom. 2. Obs. 75.* say, that they have found Cases of an Hydrocele, where the Testicle might be touch'd with the Finger, and that the Swelling and Humour was then in the Process of the Peritonæum above the Testicle : But that the contrary sometimes happens in an Enterocoele, the Intestines, as I have observ'd, penetrate into the vaginal Coat, through that natural Septum which distinguishes the Testicle from the Process of the Peritonæum. But the Cases, mention'd by these Authors, must be very uncommon ; for I have cur'd many, both of an Enterocoele and Hydrocele ; yet never met with any thing of this kind.

Sometimes the same Person labours under this, a Sarcocoele, and Hydrocele, at the same time.

Dispersing and corroborating Medicines, applied internally and externally, often work a Cure of an Hydrocele, in young Men. Externally, Compresses, dipt in Wine, or Spirit of Wine, in which Rosemary, Sage, Chamomile, Fennel, Cumin, Marjoram, and the like, have been boil'd, being laid warm on the Tumor several times in a Day, are of great Service; nor is it amiss to add, as soon as you take it off the Fire, Lime-water, and Spirit of Wine, or a small Quantity of the latter by itself. The best Remedy for new-born Infants is, for a Man in good Health, and fasting, to chew some Nutmeg, and breathe often, every Day, for some time, upon the affected Scrotum. I the more readily recommend this, as I have frequently seen the good Effects of it; in the mean time we do not despise the holding Spirit of Wine in the Mouth, and, at the same time, breathing upon the Scrotum. If both these fail, lay the Cumin-plaister, spread upon Linen, several times in a Day, upon the Tumor, warm; or apply a Compress, moisten'd with Spiritus Matricalis, warm likewise. As for internal Remedies, frequent Purging, particularly in Infants, is best; at the same time giving strengthening, dispersing, and diuretic Medicines. The Arcanum duplicatum of *Ludovicus* was esteem'd wonderfully efficacious for the Hydrocele in Adults, as a few Doses of it, according to him, with external discutient and nervous Medicines, will cure the Disorder in a few Days. But I think it will do more Service in a Dropsy, than in an Hydrocele. If these disappoint you, have recourse to Incision; though that Operation, in Adults, is not always successful. If an Inflammation be joined with an Hydrocele, forbear the Knife, till that is abated.

There are two Kinds of Cure, by Operation, one perfect or radical, the other palliative or imperfect: For the Surgeon has two Views in the Management of an Hydrocele; 1. To extract the noxious Fluid out of the Scrotum; 2. To prevent a Return of it: And, as the perfect Cure is suitable to both Designs, so the imperfect only extracts the collected Humour; and, as the first Method confines the Patient to his Bed for some Weeks, and exposes him to Pain and Danger, while the other may be perform'd more readily, and repeated with less Inconvenience and Hazard, it is no Wonder the last is prefer'd: Wherefore I shall first consider the palliative Cure.

The Ancients, in performing the palliative Cure, used a Lancet, for the Perforation of the Scrotum; this they extracted after the Operation, then inserted a Tube, through which the Humour was discharged: The modern and more commodious Practice is, to use a Trocar (see *Tab. XLV. Fig. 1.*). The Method is this: The Patient stands or sits on the Edge of a Chair; then the internal Humour is pressed downwards, from the superior Part of the Scrotum, to distend the inferior, and kept thus by a flat Ligature; next, the Trocar, about a Finger's-breadth long, sufficient to perforate the distended Integuments, which, in an inveterate Disorder, are generally thick, is introduc'd into the lower Part of the Scrotum, and directed outwards, that the Testicle may receive no Injury. When the Scrotum is thus perforated, the Needle is drawn out, and the Tube left behind, through which the collected Humours are discharged: After this, the Tube is extracted, and then the Operation is complete. Nor is the Scrotum only immediately contracted again, but the Wound also heals, without Plaster or Medicine; and the Patient may walk, and do his Business, without the least Inconvenience; tho' the Practice of those, who, after the Completion of their Work, involve the Scrotum in thick Compresses, dipt in Spirit of Wine and Lime-water, is by no means to be condemn'd. But, if the Humour is collected above the Testicle, it must be extracted by a new Incision. Further, as, after this Operation, the Scrotum generally fills again in some Months, you must repeat it, lest the Serum there collected should, by contracting an Acrimony, corrupt the internal Parts, and, principally, the Testicle; whence the Disorder becomes much more dangerous: This is sometimes repeated, two, three, or four times in a Year; and, sometimes, not for several Years, according to the quick or slow Increase of the Humour. By these means, Persons afflicted with this Distemper continue often in good Health, with little Inconvenience, and live to a great Age, as I have often seen: For, when the Water is once extracted, some robust Men are so happily cured, that they never have a Return; though, as this is not common, the Reason for terming it a palliative Cure is very manifest. When the Humour is turbid or thick, or when it is thick and tenacious, as some say it is, after many repeated Operations, and cannot be extracted by the Needle and Tube, but, insensibly, contracts a fetid Smell and obscure Colour, not unlike Blood, you must, immediately, attempt the perfect Cure, lest the Corruption and Disorder increase. So, likewise, if an Hemorrhage attends the Wound, *Garengot* advises to open the Scrotum with a Knife, to search for the injured Vein, and, when found, to tie it. But this never occurred to me.

When the above-mention'd Accidents happen, or when the Testicle is corrupted, or the Patient desires to enjoy perfect Health; the perfect Cure may be undertaken in one of the following Methods: First, The Patient is laid on his Back, upon a Table

or Bed, and either secured by four or five strong Men, or, if it seems necessary, bound both Hand and Foot, as we laid before in Celotomy; then a lateral Incision is made with a Knife, (see *Tab. XXII. G or I*) about the superior Part of the Scrotum, where the noxious Humour is contain'd; next, introduce into the Wound the Director, or, rather, the fore Finger of your Left-hand; and divide the Scrotum, to the very Bottom, with an Incision-knife or Scissars; by this means, the corrupted Humour will find an easier Passage: When that is discharged, examine the Testicle: If it proves sound and unaffected, fill the whole Wound with Lint; laying on a Compress, and the T Bandage: When these are taken off, fill it with digestive Ointment upon Lint, and apply the Bandage, that the hard and callous Coats of the Bag may be brought to a Suppuration, and separated, and, consequently, the Veins, whence the noxious Humour flow'd, be extirpated, and a Relapse prevented. But, if these Membranes are very thick and hard, the digestive Unguent will not be sufficient; but you must mix red Precipitate with it, or lay on the Precipitate, with that over it: If this disappoints you, remove as much as you can, with the Incision-knife, or Scissars; then cut off what remains, with red Precipitate, burnt Alum, and a Digestive: After this, apply a vulnerary Balsam, and bind up the Wound, till it is cleansed and healed. An adipose Excrecence is sometimes found in the Scrotum of one troubled with an Hydrocele: This must be removed, as we just now directed for callous Membranes, partly by Incision, and partly by corrosive Medicines. Though, upon opening the Scrotum, the seminal Vessels may appear tumefied, do not, after the Advice and Practice of some, inconsiderately remove the Testicle as useless and noxious; for Nature alone often cures these Tumors; but the spermatic Vessels must be tied with a Thread, and the Testicle taken away, as we have shewn under the Article SARCOCELE, when the seminal Veins are remarkably indurated, and the Patient feels extreme Pains. You must, likewise, examine very accurately, whether the tumefied Testicle contains, internally, any Fluid; for this sometimes happens; and, if you perceive any by your Touch, you may conclude, it is Water or Pus: Nor is this a sufficient Reason for taking it off, as some do, since it may be cured by an Incision and Cleansing only; but, if it be found very callous and corrupted, you must bind and extirpate it, as above, to prevent a Cancer. If the Humour is contain'd, as some Writers affirm it may be, in the upper Part of the Process of the Peritonæum, and the Testicle is not affected, though the Scrotum is distended; take particular Care, while you cut the hard Membranes, that the Testicle receives no Damage.

Since many dread the Incision-knife, the Scrotum may be open'd by corrosive Medicines, and the Water extracted. For this Purpose, apply a Plaster with a long narrow Aperture to the external Side of the Scrotum; lay a caustic Stone, or some other proper Corrosive, on the Aperture; then cover it with an entire Plaster and Compress, and secure the Whole with the T Bandage. If the Caustic does not perforate the Coats of the Scrotum, the Eschar must be divided by a Probe, Knife, or some other proper Instrument, the Water discharg'd, and the Cavity of the Wound fill'd with Lint; then proceed, as we directed before, till the Patient recovers: In this manner I have cured several. Here I must observe, that *Garengot* dreads many ill Consequences from the Caustic, as it may mix with the morbid Humour, and injure the Testicle: But his Fear is groundless; for, as soon as that has perforated the Integuments of the Scrotum, the discharging Liquor repels and washes it off; or, if any should find a Passage into the Scrotum, the Water will temperate it in such a manner as to make it entirely inoffensive: And I am confirm'd in this Opinion by Experience.

The third Method of performing the perfect Cure is this; a Piece of Tape, or a narrow Linen Cloth, in a large Needle, (as we recommended for a Seton, (see *Tab. XXXIX. Fig. 12*)) is passed through the superior lateral Part of the Scrotum, so as not to injure the Testicle, and brought out again at the Bottom. The Tape is left in, as in a Seton; and, after rubbing it with digestive Ointment, is drawn backwards and forwards twice or thrice every Day: This not only promotes the Discharge of the noxious Humour, but prevents an Inflammation, and causes an internal Suppuration; so that the corrupted Veins and Integuments are separated from the sound Parts. In twenty Days, or more, when the Suppuration is complete, and little or no Humour discharges, extract the Tape, and heal the Wound. If the Suppuration does not succeed by rubbing the digestive Ointment on the Tape, mix with it some red Precipitate. However, since the preceding Methods do more commodiously extract the noxious Humours, cleanse the Sack, and discover whether the Testicle is sound or not, and whether there is a latent adipose Body, it is no Wonder they are prefer'd, as more safe and effectual than this: For if any putrid Matter, Scirrhus, or Corruption, has seized the Testicle, it will be better to proceed by Celotomy; or, if the Membrane is adipose, to remove that, than, by leaving them, to render the Cure not only precarious, but expose the Patient to more and greater Dangers.

Marini, a modern Italian Surgeon, prefers the following Method to any other, as the most usual (perhaps in Italy). The

Body being prepar'd, the Scrotum is divided in its upper Part, immediately under the Inguen, by an Incision large enough to admit a Finger, and then a Tent of Wax, the Thickness of a Finger, and about three Fingers-breadth long; the Point of this must be somewhat crooked: This is rubbed with Ointment of Marshmallows, and introduc'd into the Cavity of the Scrotum, where, after it has continu'd twenty-four Hours, the Part affected will be found. The Water is not evacuated, the Tent is gradually shorten'd, as the Cavity diminishes, and the Tumor dispersed by an emollient Plaister. When there is a Suppuration, the Tent is dressed with the digestive Ointment of *Galen*, and Ointment of *Roses* put into the Scrotum. In seven Days, the Tent is rub'd with compound Oil of *St. John's-wort*, the Sinus cleans'd, and, the Tumor being digested, the Wound gradually lessens and heals; then the Tent is taken out, and the Cure completed by a proper Regimen. The Author forbids this Operation, while the Sun is in *Scorpio*, as that would protract the Cure; but this is mere Superstition. *Ruyfch* described much the same Method before that Author. If you attempt a Cure, says he, by opening the Scrotum in the superior Part, on one Side, then fill the Wound with an oblong Tent, rubbed with Ointment of *Roses* mixt with red Precipitate, till a gentle Inflammation, and a small succeeding Suppuration, has putrefied the Membranes; then extract them with a Forceps. I have known many perfectly cured by this Way. Observe, that the Practice of these Authors will be effectual only when the Testicle is found: On the contrary, if we suspect, or know, that to be corrupted, we must have recourse to the first or second Method of a perfect Cure.

Some itinerant Quacks persuade themselves, they have still a more ready and safe Method: They make an Incision into the Inguen, make a Ligature upon the Process of the Peritonæum and Testicle, as they do in an Enterocoele; then tear it out, tho' it is found. I am so far from approving of this, that, I think, they deserve the severest Punishment for their Barbarity, who cruelly deprive a Man of a Part so necessary for the Continuation of the Species, when it might be saved. To conclude, the perfect Cure will be more successful in young and robust Persons, than those advanced in Years, and infirm: I would, therefore, recommend the palliative Cure for them. In a word, the utmost Care is necessary, not to mistake an Enterocoele for an Hydrocele, lest the Patient should be destroy'd by wounding the Intestine, while we design only to make an Incision into the Scrotum.

AN EXPLANATION OF THE FORTY-SIXTH TABLE.

Fig. 1. Represents a latent Incision-knife, (*Gall. Bistouri herniaire cachée*) for dividing the Parts in incarcerated Ruptures, and cutting Fistulæ in the Anus: The acute Part A is elevated out of the Groove, and cuts, when the Handle B is depressed; CCC is the Groove, which conceals the Knife, till it is elevated: DD the Handle of the whole Instrument; E the Screw, or Hinge, about which the Knife is moved, upon depressing the Handle: F the Spring, which returns the Knife into its Groove, when B is not depressed.

Fig. 2. A B represent almost the same Instrument, but out of the Groove CC: The inferior Part is furnished with a Plate, in the Form of an Heart, D, which prevents the Intestines, in the Operation for an incarcerated Rupture, from rising above the Knife, and being wounded: E a different kind of Handle from the former; the Hinge and Spring likewise vary.

Fig. 3. A is the Scrotum, moderately distended, on the Right Side, by an Enterocoele. B exhibits the Manner in which the Intestine CC descends, and is reduplicated in the Scrotum (which is here divided). This Figure is taken from *Berengere's French Treatise on Ruptures*.

Fig. 4. A shews the Process of the Peritonæum, near the Inguen, as yet closed; but, at its other Parts, B B B B open'd by the Knife: C is the Testicle, with the spermatic Vessels E: D the Sacculus, which is the inferior Coat of the Peritonæum, distended and lengthen'd by a Descent of the Intestines, or Omentum, or both, here extended almost down to the Testicle.

Fig. 5. 6. &c. to 15. Represent various sorts of Trusses, for retaining the restored Intestines. Some of these (*Fig. 6. 12. and 13.*) are made of Cotton, especially for Infants; or of Leather, for Adults: Others (*Fig. 5. 7. 8. and 15.*) of Steel, cover'd with Leather: Some of Steel Plates, with moveable Joints, (*as Fig. 15.*) so as to be more commodious: Some are design'd for Ruptures on both Sides (*as Fig. 8. and 9.*): Some for a Rupture on the Right Side only (*as Fig. 6. 7.*): Others on the Left (*as Fig. 5. 10. 13. 14. and 15.*): Some are fasten'd to the Body with Tapes (*as Fig. 9. 10. 13.*): Others with Straps and Buckles (*as Fig. 6. 9. 13.*): Others with Hooks and Eyes (*as Fig. 5. 7. 8. 15.*): Others again with different Contrivances (*as Fig. 11. 12.*). A shews the Bolster in each Truss, which ought to be somewhat hard; and is applied to the Ring of the abdominal Muscles, after the Rupture is reduced: The Belt B B encompasses the Belly, and is fasten'd with Strings C C, passed through the Apertures D D; or with Buttons, (*Fig. 6. and 14.*) E E; or with Hooks and Eyes (*Fig. 5. 7. 8. 15. a a*). In most of these Trusses, besides the Belt surrounding the Belly, there is one which

hangs down, as (*Fig. 5. 6. 10. 11. 12. 13. and 14.*) F F: This is carried between the Legs, and fasten'd on the opposite Side, with Buttons, Hooks, &c. *Fig. 10. a* exhibits the opposite Part of the Bolster A, made of Leather. *Fig. 11. b c* is the anterior Part of a Wooden Bolster, *d* the posterior, where it is convex: This is laid on the Rupture, and fasten'd with the Button *e e*, at the three Extremities G, H, I, where the triangular Holes are. There is a great Variety of Trusses; but I have only exhibited those which seem best adapted to the Cure.

Of the HÆMATOCELE.

When, instead of Serum or Water, the Scrotum is distended with Blood, or a bloody Humour, it is called an Hæmatocele. This Disorder has been observed by myself, and several Moderns, as well as by *Celsus* and *Paulus*, among the Antients. This is discovered by the same Indications as the aqueous Rupture; but, if the Scrotum is nicely examined by a Candle, it is so far from being transparent, that it is rather dark, and inclined to black. The most certain Symptom is, when, upon a Perforation of the Scrotum by the Trocar, a bloody Humour is discharged instead of a Serum.

The Cause is generally some external Violence, as a Contusion, Laceration, or Rupture of the Veins in the Scrotum, by which the Blood is discharged into the Scrotum; and, if it continues long there, is corrupted, and injures the Testicle, the Consequences are very bad.

The proper Treatment is, to open the entire Scrotum on the affected Side, and discharge the bloody Humour; then to cleanse it well, and, if the Testicle is found, consolidate the broken Vessel, and heal the Wound with Balsamics. But, when the Testicle, and spermatic Vessels, are corrupted, but the Corruption has not reach'd into the Abdomen, the Vessels should be tied in the Inguen, and the vitiated Testicle should be taken off.

Of a Dropsy of the PUDENDA.

We call it a Dropsy of the Pudenda, when they are distended by any noxious or redundant Humours, so that they retain the Print of a Finger, whilst the Skin is smooth, and the Penis not drawn back. In this Case, the Humour is generally lodged in the exterior Coats of the Scrotum, especially in the cellular Membrane, which distinguishes it from an Enterocoele, and Hydrocele. This happens sometimes whilst the rest of the Body is unaffected; at other times, the Whole is, at the same time, swelled; and then you can never hope for a Cure, till the general Disorder is removed. When the Pudenda only are swelled, an internal and external Application of the digestive and corroborating Medicines, recommended for an Hydrocele, join'd with a proper Diet, will be very serviceable. If this will not suffice, it is often proper to scarify the Scrotum and Penis in Men, and Labia Pudendorum in Women, that the Humour may gradually discharge itself through those Parts. Great Advantages may accrue from a warm Fomentation of Lime-water, either alone, or strengthened with the *Lapis Medicamentosus of Crolius*; and from a frequent Application of Compresses, moistened with Spirit of Wine, and other Medicines recommended for an Oedema. *Garengot* prefers, above all, laying on the scarified Part the *Norimberg* Plaister, full of small Holes, through which the Humour may flow: The Plaister of *Cumin* and *Diaphoretic* Plaister of *Mynsicht* are proper for the same Purpose. When the Scarification unites, or grows dry, it may be discretionally repeated; but, if the Scarification alone will not work a Cure, make a kind of Seton in the lowest Parts of the Pudendum.

Of the HYDRO-SARCOCELE.

An Hydro-sarcocele is distinguished from a simple Hydrocele, by the Perception of a Humour fluctuating about the hard Body of the Testicle; and still better, if the Testicle continues preternaturally distended and indurated, after a Discharge of the Humour; for, when the Scrotum is enlarged by Water, it is very difficult to know one from the other, as the Testicle is imperceptible to the Touch, unless the Quantity of Water be very small. If the Patient therefore is only desirous of being freed from the redundant Humour, it may be easily done in the manner directed in the simple Hydrocele. But when the Testicle is greatly enlarged, callous, and painful, and the Patient willing to try the perfect Cure, you must remove the Hydrocele and Sarcocele by the same Operation. First open the Process of the Peritonæum; next tie up the spermatic Vessels, and Tunica Vaginalis, which is contiguous to the Process of the Peritonæum; and then extirpate the vitiated Testicle. Thus, by removing the corrupted Coats, and Veins of the Testicle, with the Testicle itself, they are both cured.

Of an HYDRO-ENTEROCELE.

We know an Hydro-enterocoele, by a Tumor still remaining on the same Side of the Testicle, after the Reduction of the Intestine. But, when the Hydrocele is on one Side, and the Enterocoele on the other, they are two distinct Disorders, and therefore to be treated in two different Methods. In the

first, the Intestines are to be returned into the Abdomen, and secured by a proper Bandage; in the second, the Humours are to be discharged, and this by the perfect or palliative Cure, according to the Surgeon's Discretion, and the Patient's Inclination. But great Care should be taken, not to open the Scrotum, till the Intestine is restored, and retained by an Assistant, lest, in dividing the former, you wound the latter; and, instead of Relief, bring infallible Death. When these Diseases are on different Sides of the Scrotum, the Danger is not so great.

Of the PNEUMATOCELE, or FLATULENT RUPTURE.

Several Writers assure us, there is such a Distemper as the Pneumatocele, though, in my Opinion, it does not appear either from Reason or Observation: I am rather inclin'd to think an Hydrocele or Enterocoele, cured by Medicines, or spontaneously returning into the Abdomen, have been mistaken for this Disorder; and am confirmed in my Opinion, by the Resemblance it bears to an Hydrocele, both in the Symptoms, and Method of Cure. I myself have attended Patients, whom others thought afflicted with a Pneumatocele, when it was only one of the former. Thus that experienced Surgeon *Meekren* intitles *Cap. 15. in Obs. Chirurg. de Paracentesi Scroti in Hernia Flatulenta*: Whence any one would imagine, that there really was a flatulent Rupture; but, upon Perusal of the whole Chapter, he will find the sole Discharge to be Water, without any Flatus.

The Signs, by which these Authors pretend to discover a Pneumatocele, are, 1. The Scrotum seems to the Touch like an inflated Bladder. 2. Consequently it is much lighter, than if it was replete with a Humour, and transparent at the Approach of a Candle. Lastly, If it is struck with the Finger, it sounds like a Bladder distended with Wind. For my Part, I never met with this Rupture, though I have cured many other Sorts; and therefore believe it not so common, as some would insinuate. However, if such a Disease should occur, it may be treated in the following manner: Apply externally the discutient Medicines, Fomentations, and Plaisters, which we recommended for the Cure of an Hydrocele. Prescribe internally Carminatives, and gentle Purges. But, if these will not remove the Tumor, and the Patient is willing to be cured by an Operation, introduce the Trocar, together with its Canula, into the Scrotum; when that is perforated, the Contents, whether Wind or Water, will discharge themselves. I do not think this ever occurred to *Gaveneau*, as he has not once mentioned it in all his Writings. In *Paulus Aegineta's* time, it was taken for a dilated Artery; and therefore the Cure was never attempted, for fear of a mortal Hæmorrhage. See *Lib. 6. Cap. 64.*

Of the HERNIA VARICOSA, or CIRSOCELE.

Sometimes the spermatic Veins are preternaturally distended, immediately above the Testicles, in the Process of the Peritoneum, in the Bottom of the Scrotum, and sometimes higher, even in the Inguen; so that they resemble a Varix, the Intestines of a Bird, or a Quill, sometimes with unequal Nodes, which are frequently pretty large; by which means the Testicle hangs below its proper Situation. Physicians term this Disorder, a *Ramex varicosus*, *Varicocele*, and *Cirsocele*, though perhaps it may be more properly called *Varices* of the spermatic Vessels. The Veins of the Scrotum, according to *Celsus*, are liable to Dilatation; but, with *Fabricius ab Aquapendente*, this may rather be termed *Varices* of the Scrotum, than a Rupture. However, they are often confounded, and esteemed one and the same Disease.

Both these Disorders are ascribed, either to a Redundance, or too thick Consistence, of the Blood; the Stagnation of which, in those Veins, occasions a painful Distention. Sometimes this Disease proceeds from an external Violence, whereby the Veins are contused or weakened, and the Circulation of the Blood stop'd. I have observed it in the Scrotum of young Men, who are very libidinous, and too full of seminal Juices; for their Veins are dilated by an unusual Quantity of Blood convey'd to the Testicle; however, it gives no great Uneasiness, and cannot properly be accounted a Distemper: Not only Operations therefore, but Medicines, are unnecessary; tho', when they are accompanied with Pain, the subsequent Method must be followed.

When this Disorder arises in robust healthy Men, from too great a Quantity of Semen in the spermatic Vessels, recommend Matrimony to them. If this will not cure them, or they are already married, or if it proceeds from external Violence, Medicines will be of very little Service; for they will scarcely restore the distended, weakened, or lacerated Veins, to their former Vigour; tho', as these Disorders are known to arise principally from an Inspissation of the Blood, diluting and corroborating Remedies may be proper. You may, after Bleeding, apply externally such astringent and strengthening Fomentations, as are recommended in an Hydrocele.

When the preceding Medicines were ineffectual, and both the Tumor and Pains increased, the Ancients recommended a Caustery, or a Ligature of the Veins in the Coats of the Scrotum; but, as this Method has an Appearance of Cruelty, if the Varices

are in the Coats of the Scrotum, I would advise to open the distended Veins, the whole Length of the Tumor, and let out some Ounces of Blood; then dress the Wound with Lint, and a vulnerary Plaister, securing them with a proper Compress and Bandage. In the following Dressings use a vulnerary Balsam and Plaister, till the Wound is united; for this will not only free the Patient from the inspissated Blood, and concomitant Pains, but strengthen the lax Part of the Vein by a firm Cicatrix, so as to prevent a Relapse. If the Disorder is in the Scrotum, divide that, and the Process of the *Peritoneum*; then proceed as before. In the mean time advise the Patient to drink plenty of thin Liquor, to use frequent Exercise, with attenuating Medicines, and bleed two or three times in a Year. On the contrary, prohibit all gross and hard Food, and a sedentary Life, as conducive to inspissating the Blood. This Advice is necessary at the Beginning to prevent the Increase, or remove the Cause, of the Distemper. If the Swelling is very painful, some tie up the spermatic Vessels, and Process of the *Peritoneum*, in the Inguen; and extirpate the Testicle with the varicose Veins. But, if the Vessels are indurated to the Annulus, it is better to refrain from this Operation, as Death usually attends it.

HERNIA HUMORALIS.

A Hernia Humoralis is a painful and inflammatory Tumor of one or both Testicles, arising generally from a Suppression of a virulent Running in a Gonorrhœa, or from too strong and stimulating Cathartics, especially if the Patient happens to take the least Cold during their Operation. The Cure of this Symptom must commence with Bleeding; and a Bag-Truss must be immediately provided, which may support the Weight of the Tumor, and contain and secure the proper Applications; among which none excels a Cataplasm of Bean-meal, with simple Oxy-mel, adding to it a little of the Oil of Roses, or Ointment of Elder, to preserve it from hardening and drying. Or a Decoction may be prepared of the Flowers of Chamomile, Melilior, Elder, and red Roses, which is to be inspissated with Bean-meal, adding towards the Conclusion the Oxy-mel as above. Thus:

Take of the Tops of the lesser Centaury, one Handful; of the Flowers of Chamomile, Melilior, and Elder, each half an Handful: Boil in three Pints of Forge-water, to the Consumption of half the Quantity; then strain it, and, putting it a second time on the Fire, let it be reduced to the Form of a Poultice, with Bean-meal, adding, towards the End, of simple Oxy-mel, four Ounces; and, of the Ointment of Elder, two Ounces: Preserve for Use.

During these Applications, forbear all restraining or balsamic Medicines, and purge the Patient briskly with Calomel, and *Pilule ex duobus*; but particular Care must be taken, that he gets no Cold; by which Method the Swelling is usually, in a few Days, dispersed, and the Running again appears, which must be carried off by the same or the like Cathartic, repeated at proper Intervals.

But if, notwithstanding this Method, the Pain and Fluxion still increase, with Inflammation, threatening an Abscess, the Patient must be vomited with the Turpeth Mineral; such Intervals being observed, as may prevent any Soreness of his Chaps, till the Tumor subsides; then purge off the Reliques; when, if any scirrhus Hardness should remain, you may endeavour to disperse it with the *Emplastrum Diasulphuris*, the *Emplastrum de Ranis cum Mercurio*, de *Cicuta cum Ammoniaco*, ex *Ammoniaco*, the *Diagalbanum*, or with a Suffumigation with Vinegar.

This is the Method propos'd by *Turner*, for the Cure of an Hernia Humoralis. But I must remark, that, as the *Pilule ex Duobus* is a Purge never eligible in any Sort or Stage of the Venereal Disease, so, particularly in this, it generally increases the Pain and Fluxion by its excessive Stimulation. And, upon the Whole, I think any sort of Purging, in this Case, much better omitted, till the Pain ceases, and the Tumor subsides. Mean time, copious Bleeding, succeeded immediately by one or more Turpeth-vomits, in the very Beginning, or any Stage of the Disorder, promise fairer to remove it, and prevent a Suppuration, or Induration of the Part.

But *Desault*, a French Author, proposes another Method of curing an Hernia Humoralis, which he lays great Stress upon, and celebrates with considerable Encomiums. It is, to rub into the tumefied Testicle, a sufficient Quantity of Mercurial Ointment, made with three Parts Axungia, to one of Quick-silver; after copious Bleeding, administering a Purge of Jalap-root after it, and repeating it so as to keep up a perpetual artificial Diarrhœa, so long as the Use of the Ointment is continu'd. When a Tumor, says he, seizes one or both Testicles with Pain and Pulsation, threatening Suppuration, I bleed the Patient copiously, and repeat it according to the Age of the Person, and as there is occasion, till the Inflammation seems no more inclinable to suppurate. I fly quickly to Frictions and Purges, which make the Pain cease after the third time.

The Dose of the Ointment ought to be proportioned to the Number and Violence of the Complaints. I am not satisfied with applying it only upon the Parts aggrieved; I rub it in upon the neighbouring Places, and inner Parts of the Thigh. In proportion as the Disorder is considerable, I employ six Drams, and even an Ounce of the Ointment. *Default.*

We have, in a Note above, taken some Notice of the Prior *de Cabrier's* celebrated Method of curing an Enterocoele, which was purchased by the King of France, for the Good of the Public. It is done by Spirit of Salt, mix'd with red Wine, in a Quantity suitable to the Age of the Patient; and thus drank for seven Mornings, fasting, the Patient remaining for four or six Hours afterwards without taking either Victuals or Drink: But if it should happen not to agree with the Stomach, then it may be taken only every other Day. For a Child from two Years old to six, the Dose is three or four Drops, in a Spoonful or two of red Wine; from six Years to ten, let a Dram of the Spirit be mix'd with a Pint of Wine, for seven Doses. It is to be continued, if necessary, for a Fortnight longer, in the same manner. From ten to fourteen Years, the Quantity of the Spirit may be increas'd to two Drams; from fourteen to eighteen, to two Drams and an half; and after eighteen, to five Drams. During four Months, after this Course is begun, a Steel Truss must be worn Night and Day, exactly fitted to the Rupture. The Patient ought never to sit down, but either to stand, or lie, and neither run, ride, nor go in a Coach, taking great Care to commit no Error in Diet. Under the Truss the following Plaster is applied to the Part, being first shav'd:

Take of Mastich, half an Ounce; Labdanum, three Drams; Hypocystis, one Dram, three dried Cyprus-nuts; of seal'd Earth, one Dram; black Pitch, three Ounces; Venice Turpentine, one Dram; yellow Wax, one Ounce; dry Comfrey-root, half an Ounce: Make into a Plaster, according to Art. *Geoffroy.*

HERNIARIA.

The Characters are;

The Root is fibrous, the Calyx multifid, quadrifid for the most part, or quinquefid, expanded in form of a Star, and furnished with five Stamina. The Fruit grows to the Bottom of the Flower, and becomes a round, membranous, striated Capsule, divided into eight Cells, each containing one small acuminate oval Seed.

Boerhaave mentions three Species of this Plant; which are, 1. *Herniaria*; glabra. *J. B.* 3. 378. *Tourn. Inst.* 507. *Boerb. Ind. A.* 2. 69. *Herniaria*. *Offic. Ger.* 454. *Emac.* 569. *Raii Synop.* 96. *Hist.* 1. 214. *Millegrana major*, *sive Herniaria vulgaris*. *Park. Theat.* 446. *Polygonum minus*, *sive Millegrana major*. *C. B.* 281. RUPTUREWORT.

This is a small low Plant, spreading its weak Branches on the Ground, scarce a Span long, with two little Leaves less than Mother of Thyme at each Joint. The Tops of the Stalks are loaded with a great Number of small herbaceous Flowers, succeeded by small Seed-vessels full of very minute Seed. The Root grows deep in the Ground, having many Fibres. It grows in sandy Ground, but is not very common; and flowers in June and July.

Rupturewort is cooling, drying and binding, and accounted a Specific for Ruptures of all kinds: It also provokes Urine, and is good for the Stone in the Kidneys and Bladder. It is, however, but seldom used.

Rupturewort gives a faint Tincture of Red to the blue Paper; it is acrid, and a little saltish: Its Salt does not appear different from that which is obtain'd from the Earth, without the Assistance of Fire: It gives almost the same Marks of Acidity with Sal Ammoniac; but, in this Plant, this Salt is united with a great deal of Sulphur and Earth. They affirm, that Rupturewort, apply'd as a Cataplasm, cures Ruptures, especially if one gives to drink, at the same time, the Juice, or distill'd Water of it: Some prescribe a Dram of the Powder of it in an Opiate, or in Broth. They use this Plant also with Success in a Retention of Urine, and nephritic Colic, adding a Dram of Marmalade of Orange-flowers to each Quart of the Pilsan which they prepare. *Martyn's Tournefort.*

The Herb, or whole Plant, is used, and is of a refrigerating and drying Quality: Its principal Use is in curing an Hernia, in wasting the Stone in the Kidneys and Bladder, in inciding Mucosities of the Stomach, and other Parts, and bringing them away, in evacuating Bile and Water, and consequently curing the Jaundice. *Dale* from *Schroder.*

2. *Herniaria*; *Alfines folio*. *Tourn. Inst.* 507. *Boerb. Ind. A.* 2. 96. *Arenaria*, *Offic.* *Paronychia*, *Alfines folio incana*. *J. B.* 3. 366. *Raii Hist.* 2. 1026. *Anthyllis maritima Alfines folio*. *C. B.* Pin. 282. *Anthyllis maritima incana*, *Park. Theat.* 281. *Anthyllis altera*. *Ger.* 497. *Anthyllis marina incana Alfines folia*. *Ger. Emac.* 622. SEA CHICKWEED.

It grows in maritime Places, and amongst Vines, and flowers in Summer. The Herb, which is the Part used, cures a *Paronychia*, and the *Favi*, being rubbed thereon. *Dale* from *Dioscorides*

3. *Herniaria*; *hirsuta*. *J. B.* 3. 379. *Boerb. Ind. alt. Plant. Vol.* 2. p. 96.

HERODIUS. A Name in *Aldrovand. Ornithol.* for the *Chrysaetos*, or *Hierofalco*; that is, the Golden Eagle, or largest Species of Eagle, so call'd, because it bears the Rank of Heroes in comparison of other kinds of Eagles. *Castellus.*

HEROS. *Paracelsus, de Morb. Tartar.* after his sublime Manner, calls the Spirit of Salt, *Heroem Coagulationis*, "the Hero of Coagulations." *Castellus.*

HERPES, *ἑρπης*, from *ἑρπω*, to spread, is a bilious Pustule, which, breaking out in different Manners upon the Skin, accordingly receives different Denominations.

If they appear single, as they frequently do in the Face, the Base is inflamed, and the Top pointed; and, having discharged a Drop of Matter, the Redness and Pain go off, and they dry away.

There is another Sort more corrosive, and of greater Malignity, when a Cluster of Pustules rise in a Ring, accompanied with Smart, and sometimes great Itching. This Species is term'd *Serpigo*, and vulgarly, the Tetter, or Ringworm. It ferzes the Face, Hands, and other Parts of the Body, is of an obstinate Nature, eating into the Skin; and, forsaking the Place where it first appears, it spreads its Taint into the adjacent Parts. It neither forms Matter, nor comes to Digestion; but, when rubbed, will sometimes emit a thin sharp watry Humour; and excites Smart, Heat, and Itching.

Another Kind of this Disease appears in larger Clusters upon the Neck, Breast, Loins, Hips, and Thighs, attended with a slight Fever and Inflammation. The Heads are white and mattery, which are succeeded by a small round Scab, resembling Millet-seed; whence its Name *Herpes Miliaris*, and is commonly called the Shingles. Both the two last Kinds are termed by the Antients, *Vermis repens & mordicans*, *Formica miliaris*, or (according to Mr. *Wise*) *Ambulativa*; by *Celsus*, *Ignis Sacer*; which may rather mean the Erythipelas.

Another Species, from its greater Degree of Virulence and Corrosion, is named *ἑρπης ἐκτείνουσα*, *Herpes exedens*, *vel depascens*. See ULCUS.

The simple bilious Pustule, which commonly rises in the Face, requires but little Assistance from Medicine; for, tho' it burns, smarts, or itches a Day or two, yet it naturally comes to a Head, soon dries, and disappears.

The *Serpigo* is sometimes very difficult to be exterminated; and, after it appears dead, it will, at certain Seasons of the Year, obstinately break out again. Tho' Bleeding at first is by some condemned, yet repeated Purging, especially with cholagogue Medicines, is universally approv'd: These not succeeding, recourse must be had to Mercurials, especially if there be the least Suspicion of any old Venereal Taint remaining in the Blood. Having removed the Cacochymy, we may proceed to Topics. *Ambrose Paré*, after general Evacuation, prescribes the following:

Take of the Powder of Oak-galls, Pomgranate-peel, Balauftines, and Armenian Bole, each half an Ounce; of Rose-water, half an Ounce; of the sharpest Vinegar, half an Ounce; of Goose-grease, and Oil of Myrtles, each six Drams; of Turpentine, half an Ounce: Make up into an Ointment for Use.

Or,

Take of Sulphur, calcin'd Vitriol, and Alum, of each one Dram: Macerate them in strong Vinegar, which is to be strain'd thro' a Linnen Cloth, and used as a Lotion for the Tettors.

Or,

Take of Rose-water, and Alum-water, each two Ounces; of Lime, two Drams; of Alum, three Drams; of Sublimate Mercury, four Scruples: Let them boil gently in *Balneo Mariae*, and filtrate for a Lotion of the same Use with the former.

Or,

Take of the Oil of Tartar, two Ounces; and of common Soap, four Ounces: Mix for a Liniment.

Or,

Take of the Ointment of Elecampine, two Ounces; of Cerufs, half an Ounce; of Quick-silver, three Drams; of the Juices of the Citron, and sharp-pointed Dock, each half an Ounce: Incorporate them for an Ointment.

Galen commends the Juice of Plantain, or Nightshade, mixt with Oxycrate.

Zacutus Lusitanus proposes the following Preparation, which he calls a celebrated Remedy.

Take of the white Wool shorn off from Cloth. This, when burnt in an earthen Vessel, acquires a highly black Colour; and, when triturated, and mixt with Rose or Plantain-water, resembles Ink. With this Liquor rub every Part of the Ulcer

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Ulcer, by which it will be gradually dried up, and spread no farther.

Barbet imputes the Cause of the *Herpes* rather to the Lymph, than the Bile, and salt Phlegm blamed by the Antients. He orders the Patient to be first well purg'd, and kept to a Decoction of China-root. He directs fasting Spittle to be apply'd to the Part affected, which has certainly a deterfive and mundifying Property, as well as Urine. Some, says he, use Mustard; to which others, not improperly, add Gun-powder. He commends the Unguentum Fuscum of *Felix Wurtz*; and for an obstinate Herpes, the following.

Take of the Ointment of *Felix Wurtz*, three Drams; of white Camphire, a Dram and an half; of Cerus, Sulphur, and Myrrh, each one Dram; of Litharge, a Dram and an half; of Mercurius Dulcis, and Verdegrise, each half a Dram; and, of Oil of Roses, a sufficient Quantity.

Or,

Take of Sal Prunellæ, one Dram; Flowers of Sulphur, half an Ounce; Salt of Lead, a Dram and an half; and, of old Rape-seed Oil, a sufficient Quantity.

Among the Simples useful in these Cases, he reckons Plantain, Nighthshade, red Roses, Balauftines, Cypress-nuts, Pomgranaterinds, Frankincense, Mastich, Tutty, Cerus, Litharge, Red-lead, Burnt-lead, Sulphur, Pepper, Ginger, Mercury; to which may be added Vitriol, Alum, Tartar, Nitre. The Compositions he enumerates are, the Unguentum Ægyptiacum, the Unguentum fuscum, the Unguentum Diapompholygos, the Unguentum dr Plumbo, the Unguentum de Minio, the Unguentum Griseum, and the Emplastrum de Ranis cum Mercurio.

Among other Remedies, the common People use Ink, which, by reason of its Composition, may probably succeed. Some, in Cases of extraordinary Virulence, and spreading Corrosion, when other Applications have fail'd, have check'd the Disease, by lightly touching the Parts affected with Aqua-fortis, or Oil of Vitriol. But these Remedies are not to be used without particular Caution.

Bathing the Part with the following Water made hot, has been try'd successfully, Universals first premised. The Receipt is taken from *Dr. Bates's Pharmacopœia*.

Take of Alum, and white Vitriol, each an equal Quantity: After mixing them, boil in an earthen Vessel over a slow Fire, till they become hard like a Stone: Put a Spoonful of this, reduced to Powder, into two Pints of boiling Water, till it is dissolv'd; then filtrate for Use.

The Vinegar of Litharge, and of Alum, of the same Author, are useful Remedies, as are also his *Aqua Herpetica*, and *Unguentum ad Herpetem*; but the last must be used cautiously, and only in stubborn Cases, on account of the Arsenic and Quick-lime in its Composition.

The Preparation of *Aqua Herpetica* is, by *Bates*, in his Dispensatory, directed in the following Manner:

Take of Alum, one Ounce, of white Vitriol, two Ounces; of the best Vinegar, one Pound; of the recent Roots of Elecampane, two Ounces; and, of the green Leaves of Tobacco, one Handful: Boil to a Consumption of the third Part of the Vinegar; and add, to the strain'd Liquor, half an Ounce of calcin'd Vitriol.

Apply Cloths, wet in this Preparation, to the Herpes, letting them remain till they become dry, for three or four times, till an Echar is produced, and a new Epidermis, or Scarf-skin, form'd.

HERPETICUM UNGUENTUM.

According to the same Author, this Ointment is prepar'd in the following Manner:

Take of Quick-lime, and Orpiment, each one Dram; of Tartar, common Salt, and black Soap of the common kind, each two Drams; and of the Oil of Elder, a sufficient Quantity for making into an Ointment.

With this Preparation anoint the Part affected duly, suffering it to remain on it for twenty-four Hours. By this means an Echar will be form'd, which is to be remov'd with the white Ointment. But the most effectual and safe Method of curing an Herpes is said to be by anointing it with Pomatum, mix'd up with the *Mercurius Precipitatus Albus*.

The miliary Eruptions call'd *Shingles*, not bearing such sharp and excruciating Applications, are to be differently treated; and greater Care must be taken before the Use of Topics, that the bilious Cacochymy is purg'd off, the sharp Humours contempered, and the nobler Parts secur'd from their Recrements, or from the striking in of Pustules, which seem'd to be breaking out, but, happening to be reabsorb'd by the capillary Vessels,

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are sometimes return'd into the Blood. The internal Prescriptions for this Purpose are the same with those for the *ERYSIPELAS*; which see.

When the Pustules are all ripen'd, their Heads may be cut off with a Pair of Scissars, and the Humours absorb'd with a soft Rag, to prevent farther Corrosion. Then a Cerate of Oil and Wax may be laid over the Parts, and kept on with a Bandage, to prevent the Pustules sticking to the dry Linen; in the Declension, the Unguentum Diapompholygos, the Unguentum de Minio, Unguentum de Calce, and the Unguentum album camphoratum, are proper. The two last, because of their great Refrigeration, may be a little suspected. *Turner's* Cerate of Lapis Calaminaris may be prefer'd, being moderately digesting, and healing at the same time.

Some Authors have deliver'd a Prognostic, from which the Vulgar have taken the Hint, that, when the Disease has got round the Body, it proves mortal. But the contrary of this has been observ'd; and the Danger is to be computed more from the Malignity of the Humour, and its Retrocession, than by the Number of Pustules, or their Position in the Body. *Turner de Morb. cutaneis*.

HERPETON, ἑρπίς, ἐρπίς, from ἑρπω, to creep, Reptile, in *Hippocrates*, signifies a creeping Ulcer, or Pustule, and so is the same as HERPES. It is, also, a general Epithet of all Reptiles.

HESMIS. A Quarter of a Pound. *Rulandus. Johnson.*
HESPERIS.

The Characters are;

It has a long, smooth, cylindrical, bivalve Pod, divided into two Capsules, or Cells, which are separated by an intermediate Partition, and furnish'd with cylindrical or globular Seeds.

Boerhaave mentions four-and-twenty Species of this Plant; which are,

1. Hesperis; hortensis; flore purpureo. C. B. P. 202. M. H. 2. 251. J. B. 2. 877. Viola hyemalis, purpurea. Tab. Ic. 308. Viola matronalis, flore purpureo. H. Eyst. Vern. o. 8. F. 3. Fig. 3.
2. Hesperis; hortensis; flore candido. C. B. P. 202. Hesperis, flore albo. J. B. 2. 877. Viola hyemalis, flore albo. Tab. Ic. 308. Viola, matronalis, flore candido. H. Eyst. Vern. o. 8. F. 3. Fig. 2.
3. Hesperis; hortensis; flore purpureo, pleno. H. R. Par.
4. Hesperis; hortensis; flore albo, pleno. H. R. P.
5. Hesperis; hortensis; flore vario, pleno. H. R. P.
6. Hesperis; montana; pallida; odoratissima. C. B. P. 201.
7. Hesperis; Allium redolens. See ALLIARIA.
8. Hesperis; folio dentato; flore pallido; procumbens. Draba alba, siliquosa, repens. C. B. P. 109.
9. Hesperis, lutea, siliquis strictissimis. T. 222. Draba lutea, siliquis strictissimis. C. B. P. 110. Draba lutea, quibusdam. J. B. 2. 870.
10. Hesperis; Leucoii folio non serrato; siliqua quadrangula. T. 223. Leucoium, luteum, sylvestre, angustifolium. C. B. P. 202. Leucoium sylvestre. Tab. Ic. 310.
11. Hesperis; Leucoii folio serrato; siliqua quadrangula. T. 223. Leucoium, luteum, montanum, serrato folio. C. B. P. 202.
12. Hesperis; exigua; lutea; folio dentato, angusto. Ind. 146.
13. Hesperis; flore albo; minimo; siliqua longa; folio profunde dentato. Ind. 147.
14. Hesperis; maritima; perfoliata; parva; flore cœruleo. Pluk. Almag. 183. Leucoium, maritimum, latifolium. C. B. P. 201.
15. Hesperis; maritima, latifolia; siliqua tricuspide. T. 223. Leucojo affine, Tripolium Anguillare, & Leucoium maritimum, Camerarii. J. B. 2. 876.
16. Hesperis; hirsuta; flore purpureo vario; folio aspero, parvo, Lavandulæ, siliquis Cornu Cervini divisura. Ind. 174.
17. Hesperis; Chia; saxatilis; Leucoii folio serrato flore parvo. T. C. 16.
18. Hesperis; altissima; folio Leucoii angusto, flore aureo, plurimo; siliquis longis, gracilibus.
19. Hesperis; maritima; angustifolia; incana. T. 223. Leucoium maritimum, angustifolium. C. B. P. 201. J. B. 2. 876.
20. Hesperis; folio crasso, lato, rigido, dentato; flosculis violaceis; siliquis longis, ramosè dispositis.
21. Hesperis; folio angusto; crasso, serrato, caulem amplexo, flosculo purpureo, siliqua longa; Draba siliquosa, repens, purpurea, Cretica. H. Mauroc. 68.
22. Hesperis; folio scabro, dentato, flosculo rubello; vix conspicuo; siliqua quadrangula aspera.
23. Hesperis; sylvestris; parvo flore. C. B. P. 102. Prodr. 103.
24. Hesperis; montana; pallida; odoratissima. C. B. P. 201. Boerb. Ind. alt. Plant. Vol. 2. p. 18.

The first, second, third, fourth, and fifth Sorts are cultivated in Gardens; and flower in April, May, and June. The Parts in Use are the Herb and Seeds, which, as *Clusius* says, cure Convulsions and Difficulty of Breathing; they also provoke Urine

and Sweat, and are incisive, absterfive, and digestive. *J. B.* As the *Hesperis* tastes like Rocket, so it seems to be endow'd with much the same Virtues. *Dod. Dale.*

This Plant is antiscorbutic and diaphoretic, and very serviceable in the Asthma, Coughs, and Convulsions. The outward Use of it is recommended against Inflammations, Cancers, a Gangrene, Sphacelus, and contagious Diseases. Bruis'd, it very potently resists Putrefaction; and, applied to pestilential Buboës in the Arm-pits, ripens and softens them. It is highly commended by *Hildanus*, in his Treatise of Inflammations, Sphacelus, and Gangrene; and I myself have had Experience of its Virtues, in the following Instance: There was a Student, who, being on a Journey, had the Misfortune, not only to break, but very much bruise, both the Tibia and Fibula; and, before the Surgeons could be ready with their Assistance, the Parts were seiz'd with a Gangrene. When the Surgeons were come, and had view'd the Place, they sent for me, because they despair'd of a Cure: I bruise'd this Herb in Wine, and apply'd it to the Leg, which perfectly cur'd the Patient of his Gangrene. *Historia Plantarum*, ascrib'd to *Boerhaave*.

HESTIA, ἑστία. The same as Focus; which see. It is also the Name of a celebrated Plaster among the Antients, describ'd by *Actius*, *Tetrab.* 4. *Serm.* 3. *Cap.* 2. so call'd from the Number of Drams contain'd in the Ingredients, which amount to five hundred and sixteen; the Number express'd by the Greek Letters in the Word ἑστία for σ signifies 200; τ, 300; ι, 10; ε, 5; and α, 1; which, added together, make 516.

HETERORRHOPOS, ἑτερόρροπος, from ἕτερος, importing Either, one of the two, and ῥέω, to bend, or incline, this, or that Way, or either Way. Thus, 1. *Epidem.* ἐπιδερμῶν ὅτι παρὰ τὰ ὅσα πολλοὶσιν ἑτερόρροπα ἴν' "Many were afflicted with "Swellings about the Ears, on one Side or the other." And, *Lib. eodem*, φλεγμαὶ μετ' ὁδύνης εἰς ὄρχιν ἑτερόρροπα "Inflammations, with Pain, affected one or other of the Testes." Thus, again, ἑτερόρροπες κάμνοντες, in *Hippocrates*, are Patients on the Verge of a Disorder, and inclining either to Death or Recovery; as, *Lib. de Rat. Vict. in Morb. acut.* he advises to take particular Observation of odd Numbers in Days; because such Days ἑτερόρροπείας ποιεῖ τὰς κάμνοντας, "cause an Inclination in "the State of the Sick, either one Way or other;" that is, as *Galen* expounds the Place, make a considerable Alteration towards Death or Recovery. *Foesius*. But I take this Word, when applied to Tumors, sometimes to import ambiguous or doubtful, whether they will recede, or come forwards, and suppurate.

HETERORRYTHMOS, ἑτερόρρυθμος. See **ARYTHMUS**, and **ENRYTHMUS**.

HETICH *Americum*. Thevet. Lugd. *Hetich Indis & Æthiopicus*. Dalechamp. in Plin. *Rapum Americanum foliis Bryoniae*. C. B. A Species of *American Turnep*, which has Leaves like Bryony, with a Root a Foot and an half in Length, and of the Bigness of two Fists; good to eat, and agreeable to the Taste. It is esteem'd aperitive. *Lemery des Drogues*.

HEXAGIUM, ἑξάγιον, from ἕξ, six. The Name of a Weight among the antient Greeks, being the same as the Roman *Sextula*; and so call'd, because it was the sixth Part of an Ounce, or four Scruples. *Arbuthnot*.

HEXAPHARMACUM, ἑξαφάρμακον, from ἕξ, six, and φάρμακον, a Medicine. The Name of a Plaster, describ'd by *Ægineta*, *Lib.* 3. *Cap.* 79. and so called, because it consisted of six Ingredients.

HEXIS, ἕξις, from ἔχω, to have; an Habit. "Ἑξις signifies a firm and permanent Habitude; in opposition to *χέσις* (*Schesis*) and *διάθεσις* (*Diathefis*); which imports no more than a Disposition which is transient, or easily removed: Thus *Galen*, *ad Thrasylb.* and *Lib. de bono Habitu*, explains the Word. *Hippocrates*, *Lib. de Alimento*, opposes ἕξις to διάθεσις, where he says, διάθεσις ἀθλητική ἢ φύσει, ἕξις ὕστερον κρείων, "An athletic Disposition is "unnatural, a sound Habit is better." *Hippocrates*, in *Mochlico*, among the Causes of Luxations, reckons ἕξις and χέσις, or a Habit and Disposition of Body more tumid than is requisite; where by ἕξις he seems to mean the Structure and Composition of the solid Parts; and, by χέσις, the Contexture of the Vessels and Humours; or else, certainly, χέσις there signifies an adventitious or acquired Habit of Body; as *Galen*, *Lib.* 3. *de Caus. Puls.* explains the Word from *Lib. de Artic.* and ἕξις means τὴν τῆς (αἰμαδι) καλῶσκαυιν, "The Structure of the Body," as Nature has completed it; and this is opposed by *Galen*, *Lib.* 4. *Salut.* to the *Genus venosum* and Humours: But these Senses of ἕξις and χέσις are both comprehended, *Lib. de Artic.* under χέσις, where it is said, that the χέσις of the Body, whether full and carnosus, or lean and extenuated, makes a Difference, with respect to a Disposition to Luxations. *Galen* also explains ἕξις by τὴν τῶν μορίων καλῶσκαυιν, "The Structure of the Parts," when it is joined to the Word φύσις, "Nature," as in several Places of the Book *de Rat. Vict. in Morb. acut.* Lastly, ἕξις (*Hexis*) signifies the Habit of Body, under which the solid Parts are comprehended: Whence a hectic Fever takes its Denomination, because it is seated in those Parts, and thus affects the Habit. "Those Fevers (says *Galen*, *Lib.* 1. *de Diff. Feb.*) are "called ἑλκικοί, (*Hæclic*) either because they are permanent, and

"difficult to be removed, in the Nature of a Habit; or because "they have their Seat in the very Habit of the Body, by which "are usually meant the solid Parts, as distinguished from the "Fluids."

HIANTICILLA. The same as **GALBULUS**; which see.

HIATULA. The same as **CHAMA**; which see.

HIBERNICUS LAPIS. See **TEGULA HIBERNICA**.

HIBISCUS, a Name for the **ALTHEA**.

HICESIA, ἱκασία, ἱκίσις, the Name of a Plaster among the Antients, very good for Strumæ and Abscesses of the Spleen and Joints, mention'd by *Galen*, *Lib.* 4. *de C. M. P. G.* and describ'd by *Ægineta*, *Lib.* 7. *Cap.* 17. It is corruptly written in *Latin*, *Icesii Emplastrum*.

HIDROA, ἰδρωα, ἰδρώα, from ἰδρῶς, Sweat. A kind of Pustules, arising from bilious, and viscid, saline Humours, irritating the Skin, and most troublesome in the Summer-time, when they make their Eruption with the Sweat: They are reckon'd by *Hippocrates*, 3 *Aph.* 21. among the Diseases attending the Summer.

HIDROCRITICA, ἰδρωκρίτικα, from ἰδρῶς, Sweat, and κρίνω, to judge. Signs taken from Sweat. *Blancard*.

HIDRONOSOS, ἰδρωνόσος, from ἰδρῶς, Sweat, and νόσος, a Disease. The same with **SUDOR ANGLICUS**. *Blancard*.

HIDROPYRETOS, ἰδρωπυρετός, from ἰδρῶς, Sweat, and πυρετός, a Fever, is the same as the preceding. *Blancard*.

HIDROS, ἰδρῶς, Sweat. See **SUDOR**.

HIDROTICA, ἰδρωτικά, Sudorifics. See **SUDORIFICA**.

HIDROTOPOËA, ἰδρωτοποίησις, from ἰδρῶς, Sweat, and ποίω, to make or cause, is the same with the preceding Word. *Castellus*.

HIDUS. Flos *Æris*. *Rulandus*. *Johnson*. See the Flos *Æris*, under the Article *Æs*.

HIERA DIAColocYNTHIDOS.

Take of Colocynth, Agaric, Germander, white Horehound, Stoechas, of each ten Drams; of Opopanax, Sagapenum, Parsley-seeds, round Birthwort-root, and white Pepper, of each five Drams; of Spikenard, Cinnamon, Myrrh, and Saffron, of each four Drams. Let the Gums be rubbed in a Mortar, and the rest sifted; then stir them into three Pounds, three Ounces, and five Drams, of despumated Honey, so as to make the Whole into an Electuary, *S. A.*

The Shops have not hitherto been accustomed to make it; because not yet order'd in common Prescription, nor seeming ever to deserve Notice enough to make it; its Loathsomeness rendering it unfit for any thing but Clysters.

HIERA PICRA, ἱερὰ πικρά in English, *Holy Bitter*.

This is made by a Mixture of the Species of *Hiera Picra* with despumated Honey, or Syrup of Violets, into an Electuary.

The Species *Hiera Picra* is thus prepared:

Take of Cinnamon, Zedoary, Asarum, the lesser Cardamom seeds, and Saffron, of each six Drams; Cochineal, one Scruple; of the best Aloes, twelve Ounces; and let them all be made into a Powder together.

This is a Composition of long standing, amongst Dispensatory-writers; but, by them, it is generally order'd into an Electuary, with Honey; and, sometimes, seems to have been design'd for little other Use than Clysters; as it appears, from the Annotations of *Zwelfer*, in the *Augustan Dispensatory*: But the latter Practice hath very much experienced it, in a Tincture, commonly called the *Tinctura Sacra*, the *Holy Tincture*, as the Name of the Species itself imports an *Holy Bitter*. There are larger and more perplex'd Compositions, under this Title, as one of *Nicolaus Myrepsus*, called *Hiera Logadii*, and another of *Nicolaus Alexandrinus*, which *Scribonius Largus*, *de Composit. Med.* *Cap.* 27. ascribes to *Pachius*, and extols prodigiously for its Virtues.

The *Tinctura Hiera*, or *Tinctura Sacra*, popularly called *Hiera Picra*, is thus prepared:

Take of the Species of *Hiera Picra*, one Ounce; of White-wine, one Pint: Digest, and then strain off the fine Liquor. After the same manner may it be made with *French Spirits*.

This was not in the former Dispensatory, but in *Shipton's Additions* to it, under the Title of *Tinctura Sacra*, seu *Hiera*, with some small Variations, as the Cochineal; which has no regard to the Medicine, but as it heightens the Colour: The Proportion of the Species, likewise, is but half there to what it is here; which made a requisite Dose, to some Persons, more than the Quantity of Wine or Spirit therein was agreeable to, especially if taken in a Morning. It is indeed doubted by some, whether the Menstruum will take up above a certain Quantity of the Ingredients, especially of the Aloes, which if rightly order'd, the

former of *Shipton* may be as strong as this; but it does not seem probable, because the Aloes is capable of Solution and Impregnation, to a very great Quantity, in almost any Liquor: This may be so managed, as to become a good Alterant. It is generally given over Night, from two to three Ounces; and, sometimes, in the Quantity of one Spoonful only, at Night, with excellent Effects, in a Cachexy, Chlorosis, and Obstructions of the Menfes.

HIERABOTANE, *ἱεραβόταν*, from *ἱερός*, holy, and *βόταν*, an Herb, Holy Herb, in *Dioscorides*, is a Species of **VERBENA**; which see.

HIERACANTHA. A Name, in *Boerhaave*, for the *Carlina*; *Sylvestris*; *vulgaris*.

HIERACITES, *ἱερακίτης*, the Name of a Stone; or, according to *Pliny*, a Gem: So called from its Colour, which resembles that of the *Hierax*, or Hawk. It is recommended by *Paulus Aegineta*, for repressing the Hæmorrhoids. *L. 7. C. 3.*

HIERACIUM. Hawkweed.

The Characters are;

The Stalks are full of Branches, slender, and elegant; the Leaves are disposed alternately; the Calyx is thick, firm, and expanded; the Seeds are smooth and angulous, or striated.

Boerhaave mentions forty Species of this Plant; none of which have any medicinal Virtues ascribed to them, except the 13. 16. 18. and 29.

The thirteenth Species is thus distinguish'd:

Hieracium; Folio Chondrillæ; caule vimineo, lxxvi. *Boerb. Ind. A. 86. Hieracium minus*. Offic. *Hieracium Leporinum*. Ger. 233. *Hieracium minus sive Leporinum*. Ger. Emac. 296. *Hieracium minus præmorsa radice, sive Fuchsi*. J. B. 2. 1031. Raii Hist. 1. 230. *Hieracium Chondrillæ folio glabro, radice succisa majus*. C. B. 127. Tourn. Inst. 470. **THE LESSER HAWK-WEED.**

It grows every-where in Pasture-grounds, and flowers in *June* and *July*. The Leaves are used, but the Juice seldom or never: It is effectual for the same Purposes as the *Sonchus repens multis, quibusdam Hieracium majus*; which see. Taken inwardly, it sharpens the Sight, and expels black Bile: It has the Virtues of the *Sonchus*, only is a little more bitter, and much superior to it. *Dale.*

The sixteenth Sort is thus distinguished:

Hieracium; Alpinum; latifolium; maculatum; hirsutie incanum; flore magno. C. B. P. 128. *Boerb. Ind. A. 86. Tourn. Inst. 472. Herba Costa*. Offic. *Hieracium 1. Clusii*. Ger. 237. *Hieracium 1. latifolium Clusii*. Ger. Emac. 301. Raii Hist. 1. 239. *Hieracium latifolium Pannonicum 1. Clusii*. Raii Synop. 73. Park. 800. *Hieracium Pannonicum latifolium 1. Clusio. Pilosella majori, sive Pulmonariæ luteæ accedens*. J. B. 2. 1026. *Hieracium montanum, non ramosum, caule aphylo, flore pallidiore*. Raii Cat. 162. *Dens Leonis foliis integris, caule raris foliis vestito, monanthes fere*. Raii Hist. 1. 244. **HUNGARIAN HAWK-WEED.**

It grows on chalky Hills, and flowers in *June*; the Herb is in Use, which is highly extolled for its Efficacy in pulmonic Disorders. *Buxb.* It is of singular Service in the Phthisis. *Cam. Dale.*

The eighteenth Sort is thus distinguish'd:

Hieracium; dentis Leonis; obtuso folio; majus. C. B. P. 127. Tourn. Inst. 470. *Boerb. Ind. A. 87. Hieracium longius radicatum*. Ger. 234. Emac. 298. Park. 790. Raii Hist. 1. 230. Synop. 72. *Hieracium macrocaulon junceum, sive minus, primum Dodonæo*. J. B. 2. 1031. **LONG-ROOTED HAWK-WEED.**

The Root of this Hawkweed strikes deep into the Earth, long, thick, and but little branched. The Leaves lie flat on the Ground, round about the Root, being somewhat rough and hairy, and round-pointed at the End, and cut in, in several Places, like Dandelion: The Stalks are tall, branched, and tough, having several Flowers, like those of Dandelion, but less, of a yellow Colour, which turn into Down, having long slender Seed. It grows every-where in the Fields and Meadows; and flowers in *May* and *June*.

This is a Plant seldom used; but, from the Likeness of the Leaves and Flowers, it is esteem'd to be of the Nature of Dandelion, or Sow-thistle, aperitive, cooling, and diuretic.

It grows in Pastures, and flowers in *June*, *July*, and *August*. The Leaves are commonly used, which agree in Virtues with those of the other Hawkweeds; the Herb drank is a Remedy for Pains in the Sides. *Dale.*

The twenty-ninth Sort is thus distinguished:

Hieracium; murorum; folio pilosissimo. C. B. P. 129. Raii Hist. 1. 239. Synop. 74. Tourn. Inst. 471. *Boerb. Ind. A. 87. Pulmonaria Gallica, & Pulmonaria aurea*. Offic. *Pulmonaria Gallica sive aurea latifolia*. Ger. Emac. 304. *Pilosella major quibusdam, alius Pulmonaria flore luteo*. J. B. 2. 1033. **FRENCH or GOLDEN LUNGWORT.**

It grows in Woods, and on old Walls, and shady Banks; and flowers in *June* and *July*. The Herb is used, which agrees in Virtues with the *Pulmonaria maculosa*. See **PULMONARIA**.

HIERACIUM is, also, a Name for several sorts of *Sonchus* and *Dens Leonis*.

Hieracium, capitulum inclinans. A Name for the *Hedypnois*; *annua*.

Hieracium, minus. A Name for the *Hyoferis*; *angustifolia*.

Hieracium, montanum. A Name for the *Chondrilla*; *Hieracii folio*; *annua*.

Hieracium, stellatum. A Name for the *Rhagadiolus*; *alter*.

HIERATICUM, *ἱερατικόν*. The Name of a *Malagma*, in *Galen*, de C. M. S. L. Lib. 8. Cap. 5. ascribed to *Asclepiades*, and appropriated to Disorders of the Stomach, Liver, and Pains of the Viscera.

HIERAZUNE. A Name for the *Lotus*; *pentaphyllus*; *sili-quâ cornutâ*.

HIROGLYPHICA, *ἱερογλυφικά*, from *ἱερός*, sacred, and *γλύφω*, to engrave. Characters in Medicine, invented, as pretended, by *Hermes Trismegistus*. It sometimes, also, means the Lines, and other Marks, in the Palm of the Hand, which are consulted in Chiromancy.

HIEROS, *ἱερός*, sacred, holy: An Epithet applied to a Variety of Things. See **SACER**.

HIGUERO, *Ovied*, J. B. Park. *Arbor Indica Fructu Cucurbitæ Forma & Sapore*. **THE CABBASH-TREE.**

It is a large Tree, of the Size of the black Mulberry-tree, and very common in all the Islands of *America*, and, also, on the Continent. The Flowers, in Shape, almost resemble a Lily, and are of a Colour mixed of white and green, but of a nauseous Smell: The Fruit is of various Sizes and Figures; sometimes like an Ostrich's Egg; sometimes round, and of the Bigness of a Man's Head; and sometimes oblong; green at first, but, when ripe, black and hard, and containing Seeds like a Gourd, and of the Size of Cucumber-seeds, with a yellowish Kernel. The unripe Fruit contains a white juicy Pulp, of a Smell almost like Nasturtium, but of a sweetish Taste.

The unripe Fruit is preserv'd with Sugar, and used in Fevers; and the ripe serves for Cups, and other Drinking-vessels. The ripe Pulp of the Fruit is not eatable, but is an excellent Remedy for the Head-ach; especially when it proceeds from the Heat of the Sun, if a Cataplasm be made thereof, and applied to the Forehead and Temples. *Ray's Hist. Plant.*

HILUM. The blackish Spot in Beans, commonly called, the Eye of the Bean.

HIMANTOPUS, *Plinii, Gesn.* an aquatic Bird, rarely found, and living upon Insects: It has long Legs of a Blood-red Colour; whence it has its Name *Himantopus*, which is deriv'd from *αἷμα*, Blood, and *πῆς*, a Foot.

Its Fat is resolvent, and good for the Gout. *Lemery des Drogues.*

HIMAS, *ἱμάς*, properly a Thong, or Strap of Leather, in Medicine, is a Laxness of the Uvula, when it becomes long and slender, in a pendulous Posture: It differs from *Cionis*, in that, under this latter Disorder, the Uvula is not extenuated, but, on the contrary, seems to acquire a greater Thickness.

HIMEROS, *ἡμερος*, signifies an amorous Longing, or Desire; as appears from the following Verse in *Homer*, quoted by *Erosian*, *Ὡς σὺ νῦν ἔραμαι, καὶ με γλυκύς ἡμερος αἰρεῖ*, "As now with Love I am seiz'd, and soft Desire." *Il. γ. Vers. 446.* and *Il. ξ. Vers. 328.* where *ἡμερος* expresses the amorous and conjugal Desires of *Paris* and *Jupiter* to *Helena* and *Juno*. It comes from the Verb *ἡμερίζω*, which, in *Hippocrates*, frequently imports a Venereal Congress.

HINNULUS, *νεββός*, a Hind; the Young of the Deer or Goat Kind. The Rennet of a young Hind of a Deer, taken within nine Days after it is brought forth, is a Prescription in *Scribonius Largus* for the Epilepsy. The Hind, he says, is known to be under nine Days old, by the Ears lying flat, whereas, after nine Days, they are erected. This Rennet he directs to be dried in a Place where neither Sun nor Moon can transmit their Rays; and then to be administer'd to Children in a Pill, of the Size of a Vetch, in two Cyathi of warm Water; but, to Adults, of the Size of a good Bean, in three Cyathi of warm Water, for thirty Days together, drinking afterwards two or three Cyathi of pure Water. He who communicated this Remedy, says *Scribonius*, said it would be more likely to succeed, if the Hind is killed with a Knife, which had before been employed in cutting the Throat of a Gladiator. *Pliny, Lib. 28. cap. 9.* say, that the Rennet of a Hind, cut out of the Dam's Uterus, is preferred before the greatest Remedies, for its medicinal Virtues.

HIPPACE, *ἱππάκη*. What they call *Hippace*, is Cheese made of Mares-milk, which is indeed of a rank Smell, but very nourishing, and may be compar'd with Cheese made of the Milk of Cows. Some give the Name of *Hippace* to the Rennet of a Colt. *Dioscorides, Lib. 2. cap. 80.*

HIPPION. A Name for the *Gentiana, Alpina, pumila, vera, major*.

HIPPOCAMPUS. Offic. *Rondel. de Pisc. 2. 114. Bellon. de Aquat. 446. Charlt. Exerc. 63. Salv. de Aquat. 72. C. Jonf. de Pisc. 77. Mouff. Insect. fol. ult. Aldrov. de Insect. 736. Raii Ichth. 157. Ejusd. Synop. Pisc. 45. The SEA HORSE.*

It is taken in the *Mediterranean* Sea. The Ashes of the burnt Fish, mixed with Tar or Fat, or *Amaracium Unguentum*, and the

the Part anointed, cures an Alopecia. *Dioscorides*. It is a Remedy against the Bite of a mad Dog. *Ælian*. Dale.

HIPPOCASTANUM.

The Characters are;

The Leaves are digitated, and like those of the common Chestnut; the Calyx is quinquefid, and, as it were, bilabiated. The Flower is rosaceous, pentapetalous, anomalous, and, in a manner, bilabiated, the Petals growing round the Base of the Ovary; whence, also, arise five, six, or seven Stamina. The Flowers are disposed on a long Spike, making a specious Appearance. The Ovary is seated in the Bottom of the Calyx, and produces a long, thick Tube, with a uniform or hooked Apex; and becomes a prickly, unicapular Fruit, gaping on all Parts, and full of Seeds, like those of the Chestnut.

Boerhaave mentions three Species of this Plant, which are;

1. Hippocastanum; vulgare. *Tourn. Inst.* 611. *Boerb. Ind. A.* 2. 250. *Castanea equina*. Ger. 1253. Emac. 1442. Park. Theatr. 1401. Raii Hist. 2. 1683. *Castanea equina folio multifido*. J. B. 1. 128. *Castanea folio multifido*. C. B. Pin. 419. HORSE CHESTNUT. It is cultivated in Gardens and Walks, and flowers in May and June. The Fruit is used, and esteemed an Errhine. Dale. It is said to be good for broken-winded Horses.

2. Hippocastanum; vulgare; folio constanter variegato.

3. Hippocastanum; vulgare; flore maculis flavis picto.

Boerb. Ind. alt. Plant. Vol. 2. p. 230.

HIPPOCRAS. See CLARETUM.

HIPPOCRATES. Having already given a pretty full Account of the Method and Practice of Medicine, as established by this great Physician in the Preface, it may be sufficient, under this Article, to give a brief historical Account of his Life, his Family, and the various Editions of his Works. *Hippocrates* was descended from *Æsculapius*, in the eighteenth Degree of Succession; and, by his Mother's Side, he was in the twentieth Degree of Descent from *Hercules*, according to the following Genealogy, which was drawn up by the Antients, from the Memoirs of *Eratosthenes*, *Phercydes*, *Apollodorus*, and *Arius Tarsensis*. *Æsculapius*, who was educated by *Chiron*, married *Epione*, the Daughter of *Hercules*, and by her had several Daughters, and two Sons, *Podalirius* King of *Caria*, and *Maebon*, who reigned in *Messenia*: The Descendants of *Podalirius* were *Hippolochus*, *Sostratus* I. *Dardanus*, *Cleomittades* I. *Chrysimus* I. *Theodorus* I. *Sostratus* II. *Chrysimus* II. *Cleomittades* II. *Theodorus* II. *Sostratus* III. *Nebrus*, *Cnospidicus* of *Coos*, *Hippocrates* I. *Heraclides* of *Coos*. The great *Hippocrates*. This Branch of *Podalirius* reigned in *Caria* till *Theodorus* II. under whom they were dispossessed by the *Heraclidae*, and obliged to retire into the Isle of *Coos*, which is over-against *Caria*; where they all practised Medicine with high Reputation, especially *Nebrus*, *Cnospidicus*, *Hippocrates* I. and *Heraclides*. But the Heir of all their Fame and Talents was our *Hippocrates* II. whom Nature had favour'd with so strong a Constitution, that no Labour or Hardship could alter it; and with so prodigious a Penetration, and Capacity of Mind, that she is fabled to have conducted him into her deepest Abysses, and there discover'd to him all her Mysteries. He was born at *Coos*, in the first Year of the eighth Olympiad, four hundred and fifty-eight Years before the Birth of our Saviour, and in the fifth Year of the Reign of *Artaxerxes Longimanus*; and was cotemporary with *Socrates*, *Herodotus*, and *Thucydides*, and other great Men of these Times. His Father *Heraclides*, and Grandfather *Hippocrates*, both great Physicians, took care to teach him, not only Medicine, but Logic, Physics, or Natural Philosophy, Geometry, and Astronomy: He studied Eloquence under *Gorgias* the *Leontine*, the most celebrated Rhetorician of his Time.

The Isle of *Coos*, the Place of his Birth, is very happily situated; and had, for a long time, been famous for a public School of Medicine, founded by his Ancestors: He had therefore all the necessary Conveniences for learning the Theory of Medicine, without going out of his own Country; but, as the greatest Cities in those Times were not very populous, so, in order to perfect himself in the Practice of his Art, he follow'd the Precept which he gives to others in his *Nepiæ*, Law; where he says, that, "after acquiring the Science of Medicine, it is necessary to travel, and visit foreign Cities, in order to be something more than a Physician in Name; for Ignorance, which proceeds from want of Experience, is but a bad Stock for those who possess it, and an unfortunate Incumbrance by Night and by Day."

He travell'd in *Macedon*, *Thrace*, and *Thessaly*; and, in making the Tour of these Countries, he made the greatest Part of those Observations which are contained in his Book of Epidemic Diseases. He went indeed over all *Greece*, curing not only particular Persons, but Cities, and whole Provinces. The *Illyrians* sent Embassadors to intreat him to come and remove a cruel Pestilence, which ravaged the whole Country: *Hippocrates* was very willing to go to the Assistance of these People; but first informing himself of the Winds, which were then predominant in *Illyria*, of the Heats of the Season, and of every thing which preceded the Contagion, he was sensible, that

there was no Remedy for the Distemper, and refused to go. But, foreseeing that this Pestilence would soon be carried into *Thessaly* and *Greece* by the same Winds, he immediately sent his two Sons, *Thessalus* and *Draco*, with his Son-in-law *Polybus*, and several of his Pupils, to different Places, with necessary Instructions; and went himself to the Assistance of the *Thessalians*, from whence he passed to the *Dorians*, and thence to *Phocis*, visiting *Delphos*, where he offered up Prayers and Sacrifices; and, passing thro' all *Bæotia*, made his Appearance at *Athens*, behaving himself all the Way like another *Apollo*; or, to use the Words of *Callimachus*, doing the Office of that divine Panacea, "whose precious Drops expel Diseases wheresoever they fall."

On another still more pressing Occasion, he delivered the City of *Athens* from the great Plague, which had made infinite Ravages, and is so well described by *Thucydides*, an Eye-witness, and after him by *Lucretius*. They say the general Remedies, which he made use of on that Occasion, were great Fires, which he caused to be kindled in all the Streets; and directed all Sorts of aromatic Flowers and Drugs to be cast therein, in order to purify the Air; a Method practised, a long time before *Hippocrates*, by the *Egyptians*, who, as we are inform'd by *Plutarch*, purified the Air in the Morning with Perfumes of *Rosin*, burnt *Myrrh* in the Middle of the Day, and in the Evening, at Night-fall, kindled up Torches, call'd *CYPRI*, the Preparation of which may be seen under that Article. Some, however, are of Opinion, that the Plague, describ'd by *Thucydides*, was not the same which *Hippocrates* cured at *Athens*.

So great was his Reputation, that most Princes and Kings try'd to get him to their Courts. He was sent for to the Court of *Perdiccas*, King of *Macedonia*, who was thought to be ill of a Consumption; where, after considering the Distemper, he discovered that the Cause of it was nothing but a Love for his Father's Mistress, named *Phyla*.

Artaxerxes offer'd him immense Sums of Money, and entire Cities, to oblige him to come and remove a Pestilence, which made terrible Devastations in his Armies and Provinces; and order'd him a Present of a hundred Talents, by way of Advance. *Hippocrates* regarding those Riches as Enemies to his Country, and an eternal Reproach to his House, he refused them, and return'd the Governor of the *Hellepont* this generous Answer: "Write to your Master, that I am rich enough; and that I cannot, with Honour, accept his Offers, nor go and cure Barbarians, who are Enemies to the Greeks." Somebody telling him on this Occasion, that he did wrong to slight so great a Fortune, and that *Artaxerxes* was a very good Master, he answer'd, "I have no Business with a Master, how good soever he may be."

He was sent for by the Senate of *Abdera* to cure *Democritus*, who passed for a Madman in the Opinion of the Populace, who are always ready to mistake a Man, who is wise above the common Rate, for a Fool, or a Madman. *Hippocrates* gave, on this Occasion, a signal Proof of his Contempt of Riches, in refusing ten Talents, which were offer'd him.

When the *Athenians* sent *Alcibiades* into *Sicily*, *Hippocrates* gave them his Son *Thessalus*, for a Physician to their Army, and defray'd the Expences of his Voyage. The ill Success of that Expedition did not prevent the *Athenians* from honouring *Thessalus* with a Crown of Gold at his Return, after three Years Service.

No Citizen ever gave greater Proofs of Patriotism, than *Hippocrates*. When the *Athenians* made Preparations to carry their Arms into the Isle of *Coos*, *Hippocrates* immediately went to implore the Protection of the *Thessalians*, and the neighbouring States; and sent his Son *Thessalus* to *Athens*, to endeavour to allay the Tempest which threaten'd his Country. Both Father and Son met with Success; for *Macedonia*, *Thessaly*, and *Peloponnesus*, were all up in Arms, and ready to march to the Assistance of *Coos*; and the *Athenians*, either out of Fear or Gratitude, hearken'd to the Remonstrances of *Thessalus*.

Pythagoras taught, that the Way for Mortals to render themselves like the Deity, was to speak the Truth, and to do Good to all the World. According to this Maxim, no Man ever more justly deserved the Title of divine than *Hippocrates*. The Good, which he has done to all succeeding Ages, is very well known; and he was so great a Lover of Truth, that he was willing to advertise Posterity of a Mistake, into which he had fallen, and which might have been buried in Oblivion, like those of other Physicians, whose good Success is publish'd to all the World, and their Errors industriously conceal'd. In the fifth Book of his *Epidemics*, he confesses, with an Ingenuity, of which none but great Minds are capable, that, being called to attend on *Autonomus*, who had received a Wound in his Head, he unfortunately mistook the Wound for one of the Sutures, and neglected trepanning him: Some Days after, the Patient being seized with a great Pain in the Sides, and Convulsions in both Arms, he was sensible of his Fault, and applied the Trepan, but in vain; for, it being the fifteenth Day, and the Summer Season, the Patient died the next Day.

Hippocrates

Hippocrates desir'd of the Gods, in Recompence of his Labours, neither Riches nor Pleasures, but a long Life in perfect Health, Success in his Art, and to render himself famous to Posterity. This Desire of his is declar'd in his *Oath*, and it was accomplish'd in its full Extent; for he lived one hundred and nine Years in Soundness of Mind and Body; he succeeded so well in his Art, that he has been regarded as the Founder of it; and he received, during his Life, such great Honours, as were never given to any Mortal. The *Argians* erected a Statue of Gold to his Honour; and the *Athenians* decreed him Crowns of the same Metal, pass'd an Act, that himself, and his Descendants, should be maintain'd in the *Prytaneum*, and initiated him into the great Mysteries; an Honour very rarely confer'd on Strangers, and never before on any but *Hercules*; and he has left behind him an immortal Reputation. *Plato* and *Aristotle*, the two greatest Geniuses which perhaps ever appear'd, follow'd him as their Master, and made it their Business to explain his Sentiments. In short, *Hippocrates* has been always regarded as the most faithful Interpreter of Nature; and, in all Appearance, he will preserve the Glory and Reputation, of which more than two thousand Years have not been able to deprive him, to the latest Ages.

He died in *Theffaly*, in the second Year of the one hundred and seventh Olympiad, three hundred and forty-nine Years before the Birth of Christ, and was buried between *Larissa* and *Gortona*.

Having thus given some of the most remarkable Passages of this great Man's Life, it will be easy from thence to form his Character; and therefore we shall do no more than give an Account of the various Editions of his Works, as we find them in *Fabricius's Bibliotheca Græca*.

The Greek Editions are,

1. That at *Venice*, An. 1526. by *Aldus*, in Folio.
2. At *Basil*, 1538. Folio, by *Frobenius*, corrected after three Manuscript Copies by *Janus Cornarius*.

Latin Editions.

The ancient Latin Version of *Hippocrates* and *Galen* is lost, but there are Latin Editions of *Hippocrates*, since the Publication of some Treatises of his, which were most of them translated out of *Arabic* into *Latin*, and printed at *Venice* 1493. and 1497.

1. That, translated by several Hands, at *Basil*, printed by *A. Cratauder*, 1526. Folio.

2. The Version of *M. Fabius Calvus*, of *Ravenna*, at the Command of Pope *Clement VII.* from Greek Manuscripts in the *Vatican*, and printed at *Rome* 1549. Folio.

3. The Version of *Janus Cornarius*, printed at *Venice* 1545. Octavo; and at *Paris* 1546. Octavo; and the same Year at *Basil*, in a more beautiful Letter, by *Frobenius*, in Folio; and again, at the same Place, in 1553. in Folio; and 1554. in Octavo, 2 Vols. Again, in the same Place, by *J. Culman* of *Geppingen*, 1558. Folio; at *Lyons*, 1562. Octavo, and 1564. Folio, with the Commentary of *Marinellus*, and the Arguments of *Culman*; at *Venice* 1575. and 1619. Folio; at *Vicenza* 1610. Folio, with a paraphrastic Translation of the Epistles, and some other Treatises of *Hippocrates*, done by *Cornarius*, and inserted before the Work; at *Cologne* 1542. Octavo.

4. The Latin Version of *Annius Foesius*, printed at *Frankfort*, apud *Wechelios*, 1596. Octavo.

The Græco-Latin Editions are,

1. That of *Hieron. Mercurialis*, printed at *Venice*, 1588. Folio.
2. Of *Annius Foesius*, printed at *Frankfort*, Typis *Wechelianis*, 1595. Folio. Re-printed at the same Place, 1621. and 1645. and at *Geneva*, 1657. Folio.

3. Of *Joh. Antonid. Vander Linden*, with the Version of *Cornarius*, printed at *Leyden*, 1665. Octavo.

4. Of *Renatus Charterius*, who revised and compar'd, by Manuscripts, the Works of *Hippocrates* and *Galen*, corrected the Version in Multitudes of Places, adding the various Readings, and Corrections at the End of each Volume; printed at *Paris*, 1679. 13 Vol. Folio.

Besides the Editions mentioned, *Prosper Martianus*, on the Works of *Hippocrates*, and his posthumous Annotations, were published by *Petrus Castellanus*, at *Rome*, 1626. Folio. Twenty-two Treatises, with the Version of *Cornarius*, and an Analysis, or Tables, and Animadversions of *Theod. Zwinger* were printed at *Basil*, 1579. Fol. and are now very scarce. *Fabricii Bibliotheca Græca*.

HIPPOCRATICA Facies. See FACIES.

HIPPOCRATICUM Scammum. See BATHRON.

HIPPOCRATICUM Vinum. See CLARETUM.

HIPPOGLOSSUM. See BISLYNGUA.

HIPPOGLOSSUS. A kind of Fish, being a larger Species of Sole; whose Use in Food see under ALIMENTUM.

HIPPOLAPATHUM. See LAPATHUM; *Alpinum*; folio subrotundo.

HIPPOLITHUS, ἵππολιθός, from ἵππος, a Horse, and λίθος, a Stone; a Stone found in the Stomach or Intestines of a Horse. See EQUUS, and BEZOAR.

HIPPOMANES, ἵππομανής, from ἵππος, a Horse, and μανία, to be mad, is a Name for the CYNOCRAME, or APOCYNUM, so called, because it makes Horses, which eat of it, mad, *Theocrit. Idyl.* 2. and for the expressed Juice of the *Tithymallus*, *Theophrast. Hist. Plant.* It also signifies a Juice distilling from the Genitals of a Mare in the time of her Covering. *Aristot. Hist. Anim.* Some, again, take it for the Secundines of a Mare; and, lastly, it signifies a fleshy Substance, adhering to the Forehead of a Colt newly foaled, which some imagine to have a Virtue of procuring Love, and promoting the Birth.

HIPPOMARATHRUM, ἵππομαράθρον, from ἵππος, an Horse, and μάραθρον, Fennel; Horse-fennel.

HIPPOMARATHRUM is Wild Fennel, large, and bearing a Seed like *Cachry*, or *Cachry*. The Root is sweet-scented, and, being drank, cures the Strangury, and, used in a Pessary, provokes the Menses. The Seed, or Root, taken internally, bind the Belly, cures the Bites of venomous Animals, breaks the Stone, and removes the Jaundice. The Decoction of the Leaves, drank, procures Plenty of Milk, and purges Women after Child-birth. There is another Plant called *Hippomarathrum*, which has narrow, slender, oblong Leaves, with round, Coriander-like, acrimonious, sweet-scented, and hot Seeds: Its Virtues are the same with those of the preceding, only less efficacious. *Dioscorides*, Lib. 3. Cap. 82.

Ray mentions a *Hippomarathrum Spherocephalum*, or round-headed *Hippomarathrum*, propagated by Seeds sent from *Egypt* by *Prosper Alpinus*, which differs from the *Cachryophorous*, or *Cachry*-bearing *Hippomarathrum*, in that it is much larger, having longer and bigger Stalks, and bearing Umbels of a violet Colour, almost perfectly spherical, and producing Seeds like those of Fennel. *Raii Hist. Plant.*

HIPPONE. The Name of a Malagma, invented by *Philagrius*, and described by *Aetius*, *Tetrab.* 3. *Serm.* 3.

HIPPOPHAES, ἵπποφαές, according to *Dioscorides*, is a shrubby Plant, which is of Service to Fullers in scouring their Cloth: It is also called ἵπποφανές, (*Hippophaes*) and ἵπποφυές, (*Hippophyes*) and ἵπποφύον, (*Hippophyon*) by *Theophrastus*. In *Pliny*, Lib. 21. Cap. 15. we read *Hippophaes*, and Lib. 22. Cap. 12. we find it *Hippophyes*. *Gaza* renders the Word in *Theophrastus* by *Lappago*; and *Galen*, in his *Exegetis*, says, it is also called κνύφος, (*Cnephos*) and στύβος, (*Stybos*) for which some read σιλβός, (*Stilbos*).

Hippophaes, says *Dioscorides*, grows in maritime and sandy Places, is a Shrub of the spriggy Kind, [ἐρρυγανώδης] which sends forth its Shoots thick and close on all Sides, has long Leaves, nearly resembling those of the Olive-tree, but narrower and softer, among which are interspersed dry, whitish, angular Thorns, distant from one another. The Flowers resemble Clusters of Ivy-berries, being collected in Bunches, but smaller and soft, and of a whitish, and partly red Colour. The Root is thick, soft, bitter, and full of a milky Juice. From this Plant, as well as from the *Thapsia*, they extract a Juice, which is reposed either by itself, or work'd up with the Flower of the *Ervum*, and dry'd. The Weight of half a Scruple of the Liquor taken alone purges bilious, watry, and pituitous Humours; but the Dose of the *Ervum*, impregnated with the same, is two Scruples in Hydromel. The Plant, together with its Root, is dry'd, triturated, and exhibited in half a Pint of Hydromel. They prepare a Liquor from the Plant, and its Root, as is done from the *Thapsia*; the Dose of which is a Dram, for a Purge. *Dioscorides*, Lib. 4. Cap. 162.

The Author above-mention'd says, that "the *Hippophaestus*, which some call *Hippophaes*, grows in the same Places with the *Hippophaes*, and is a kind of *Fullers Thorn*; that it is a low Ground-herb, and has only small prickly Leaves, with gaping, empty Heads, and bears neither Stalk nor Flower; the Root is thick and soft." By this Description it appears, that the *Hippophaes* and *Hippophaestus* are the same Plant; and that the latter is only the *Hippophaes*, in its recent State, before it produces a Stalk. But on what Plant to fix this Name, is a Point much controverted, and not easy to be determined. *Columna* calls the *Carduus Stellatus* the *Hippophaes*, and doubts whether the *Rhamnus Salicis Folio* of *C. B.* ought not to be so named. *C. Bauhine* separates the *Hippophaes* of *Anguillara*, from the *Hippophaes* of *Dioscorides*, referring the former to the *Rhamnus*, how justly, I will not determine; for I suppose none of them to be genuine, because none of their Roots afford a milky Juice. *Matthioli* writes, that *Hieronymus Amatheus*, a Physician of *Oderzo*, in the State of *Venice*, shew'd him a Plant, which he had sent him from *Venice*, by *J. Baptist. Ropisso*, a Physician of *Pavia*, which not only answer'd all the Characters of the *Hippophaestus* of *Dioscorides*, but also the Virtues, as he assures us he found by an Experiment; and this put him in Hopes of discovering it. *Parkinson* thinks it a Species of *Tithymalus*, and I see no Reason to disagree with him; and therefore I have placed it under the Head of *Tithymalus*, and collected and compared the Synonyma. *Dale*.

Hippocrates often uses the Juice of the *Hippophaes*, as well as the *Coccus Cnidius*, as a Purge for the Head; he prescribes it also

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to evacuate white Phlegm, and for the Anasarca, to expel pituitous Humours in the Sciatica; in the Typhus, a sort of burning Fever, he exhibits the Juice of Hippophaes with the Coccus Cnidiæ, as a Cathartic; and Lib. de intern. Morb. he advises purging downward by Hippophaes, and upwards by white Hellebore.

The Synonyma, according to Dale, are;
Hippophaes, Hippophæstum, & Hippomanes. Offic. Park. Theat. 197. Hippophaes Anguillare & Dodonæi, five Spina purgatrix. J. B. 1. 410. Hippophaes quibusdam ἀναγθα καλαστρινή, i. e. Spina purgatrix. C. B. P. 293. Rhamnus Catharticus Oleæ folio. Ejusd. Tithymalus maritimus. Ejusd. Tithymalus spinosus. Wheeler. Itin. 307. Tithymalus maritimus, Creticus spinosus. Park. PURGING-THORN.

It grows in the Morea; the Juice is used to purge off, by Stool, pituitose Humours.

Boerhaave gives the Name of Hippophae to the Rhamnoides; fructifera; Salicis foliis; baccis leviter flavescens: And also to the Facea; stellata; folio papaveris erratici.

HIPPOPHÆSTUM, ἵπποφαῖστον.
Dioscorides makes different Chapters of the Hippophaes and Hippophæstum, and, giving the Virtues of the latter, says, that a Juice is extracted from the Leaves, Root, and Heads, which, dry'd, and exhibited to the Weight of a Scruple and half, purges Water, and Phlegm, and is particularly serviceable in the Orthopnea, Epilepsy, and nervous Diseases. Dioscorides, Lib. 4. Cap. 163. See HIPPOPHÆS.

HIPPOPOTAMUS. Offic. Aldrov. de Quad. Digit. 181. Gefn. de Quad. Digit. 493. Charlt. Exer. 14. Jonf. de Quad. 76. Raii Synop. A. 123. Mont. Exot. 5. Bellon. de Aquat. 25. THE SEA-HORSE, or rather RIVER-HORSE.

The Teeth and Testicles of this Animal are used in Medicine; the Testicles, dried and triturated, are drank against the Bites of Serpents. Dioscorides. The Teeth, made into Rings, are supposed to be of great Virtue against the Cramp. Charlt. Dale.

Another Species of Hippopotamus is the Equus marinus. Offic. Equus marinus & Hippopotamus falso dictus. Raii Synop. A. 191. Rosmarus. Jonf. de Pisc. Tab. 44. Waleus alius Mars. Charlt. de Pisc. 49. Mars seu Morfz, vel Rosmarus. Gefn. de Aquat. 211. THE SEA-HORSE.

The Parts of this Animal used in Medicine are, the Pizzle, which is a round, bony Substance, a Cubit, or more, in Length; thick, ponderous, and solid; and much thicker and rounder at the End, near the Glands; and the Teeth, which are great, long, thick, ponderous, hollow, and white.

The Pizzle, pulverized, is used to expel the Stone; the Teeth, for Service and Value, are compared to Ivory, and are made into various Forms, as into Rings for the Cramp, and for other Purposes. Dale.

HIPPOSELINUM. See SMYRNIUM.
HIPPOSIS, ἵππωσις, from ἵππῶς, or ἵππῶ, to press, after the manner of Fullers, a Pressure, Compression, or Depression: Thus, Lib. de Artic. τὰ μὲν γὰρ ἐξέσθῃτα ἐς τὴν χύσιν ἀναγὰζῃ καὶ ἡ ἵππωσις ἵναί, "for things out of their Places are reduced into their Situation by Compression."

HIPPOSORCHIS, ἵπποσῶρχις, from ἵππῶς, a Horse, and ὄρχις, a Testicle, in the Ausburgh Dispensatory, means the Powder of the Testicles of a Horse; but Hipparchis had been a more elegant Word, and better turned according to the Rules of Composition.

HIPPURIS, ἵππυρις, from ἵππῶς, a Horse, and ὄρεξ, a Tail, is a Name given to several sorts of Equisetum. Hippuris minor is a Name for the Ephedra; maritima; minor.

ἵππυρις, Lib. 7. Epidem. is supposed to signify an inveterate and stubborn Defluxion on the Pudenda of those who continue too long, or mount too often, on Horse-back, or some Weakness, or other Inconvenience, of the same Parts, proceeding from the same Cause.

HIPPUS, ἵππῶς, is an Affection of the Eyes, under which they are continually trembling, and twinkling, as is usual with those who ride on Horse-back. The Author of the Definitiones Medicæ says, ἵππῶς ἐστὶ διὰ τὸ ἐκ γυνεῦσθαι, &c. "The Hippus" is an Affection contracted from the Birth, in which the Eyes are unsettled, and always in Motion, being under a perpetual Concussion and Trembling. This Disorder was called by Hippocrates, ἵππῶς, and is an Affection of the Muscle which sustains the Eye, and embraces the Base of the visual Organ."

HIRA. There are great Disputes about the Orthography and Signification of this Word. The ancient Copies read Chira, some Hilla. Some restrain its Meaning to the Intestinum jejuni, others extend it to all the Intestines; and Linden, in a larger Sense, to all the Contents of the Abdomen. Castellus.

HIRBELLUM, in Paracelsus, Tr. de Surditate, is something unknown, which renders Persons delirious. Castellus.

HIRCI BARBA. See TRAGOPOGON.

HIRCULUS. A Species of Plant so called, because of its rank, goatish Smell.

HIRCUS. The same as CAPER, which see. Hircus Bezoar-tinus; see BEZOAR.

HIRQUUS. The great Angle of the Eye.

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HIRUDO, Sanguisuga. Offic. Charlt. Insect. 61. Mer. Pin. 207. Hirudo five Sanguisuga. Mont. Exer. 323. Hirudo maxime apud nos vulgaris. Raii Hist. Insect. 3. Hirudo major, equina. Schrod. 5. 342. THE LEECH.

These are small black Animals, destitute of Legs, variegated with Lines and Points, and living in watry Places. The small Leeches are prefer'd to the large, as being less hurtful; and, among the small ones, such as are mark'd with Lines on the Back.

It is not impossible, but that the Antients might take the Hint of bleeding from these Insects; for it is well known, that in the Spring, when Horses are allur'd into Ponds and Rivers by the green Grass, the large Leeches, called Horse-leeches, seize their Legs, or Flanks, perforate a Vein, and excite a profuse Hæmorrhage; and that, after this, the Horses improve in Health, and Flesh. See BDELLA.

Themison was, probably, the first Physician who used Leeches; he is, at least, the first that takes notice of them: For Hippocrates never once mentions them; and Celsus Aurelianus quotes nothing concerning them in the Extracts he gives us from the Writings of those Physicians who liv'd betwixt the Times of Hippocrates and Themison. Those of the Sect of Themison us'd Leeches upon many Occasions; and sometimes applied Cupping-glasses to the Part, after the Leeches dropt off, in order to draw off more Blood. Galen does not mention them, perhaps, because they were peculiar to the Methodic Sect, which he despised. Indeed they are mention'd in an imperfect Treatise de Cucurbitulis, de Scarificatione, de Sanguisugis, &c. ascrib'd to Galen, but, probably, without Foundation; because Oribasius, Lib. 7. speaks to the same Purpose with regard to Leeches; and declares he extracted it from Antyllus and Menemachus, who were Methodics, at least the last of them. This Remedy was, probably, first discover'd by the Peasants.

Leeches are a Species of aquatic Worms or Insects, which, being applied to the Body, bite through the Skin, extract Blood out of the Veins, and are very conducive to Health; for which Reason they were us'd in very early Times, by the Greek and Roman Physicians. Since there are various kinds of them, it will be proper to give some Direction for the Choice. Those, then, taken out of clear Brooks and Rivers are best; for the others from Lakes, Fish-ponds, and stagnating Waters, are impure and malignant, exciting sometimes violent Pains, Inflammations, and Tumors. The most experienced Surgeons likewise prefer those with slender-pointed Heads, and greenish or yellowish Streaks on their Backs, with their Bellies of a Reddish-yellow; for when their Heads are large, and from a blue they incline to a black Colour all over their Bodies, we look upon them to be the most malignant Sort. But one Observation more seems absolutely necessary, never to apply Leeches lately caught in Rivers, or foul Waters; but let them be first put into a Glass full of clean Water, and often shifted, that they may purge themselves of their Filth and Venom. After keeping them some Months in this manner, they may be us'd safely. See Tab. XXXIII. Fig. 5.

Before the Leech is applied, it should be taken out of the Water, and put into an empty Cup, or Glass; that, being thirsty, it may more speedily insinuate itself into the Skin, and draw off a greater Quantity of Blood. And as for the Part, it may be put on the Temples, or behind the Ears, if there is any Disorder in the Head or Eyes, from a Redundance of Blood, and especially if the Patient is delirious in a Fever. They may sometimes be conveniently apply'd to the Veins of the Rectum, in the blind and painful Piles; nor will this Application be of less Service, in Hæmorrhages of the Nose; and in spitting or vomiting Blood; for their Efficacy in promoting a Revulsion, especially when an Obstruction of the Hæmorrhoids occasions this Profusion, is very extraordinary. But before the Leech is used, the Part should be rub'd, till it is hot and red; then the Tail must be taken hold of with a dry Cloth, or it must be laid half over the Edge of a Glass, and thus directed to the proper Place, where, when it is once fixed, it sucks very greedily. If several are necessary, apply each successively in this manner. When they will not adhere, as it sometimes happens, it is proper to moisten the Skin with warm Water, or the Blood of a Pigeon, or Chicken: If that will not entice them, others must be substituted in their stead. The Application of Leeches to the Caruncle in the greater Canthus of the Eye, after Phlebotomy, has been found very serviceable, in all inflammatory Disorders of that Organ. Cream and Sugar, rub'd upon the Part, will invite Leeches to bite, when other things fail.

As soon as the Leeches are distended with Blood, they generally fall off spontaneously; but, if a larger Quantity of Blood is requisite, new ones must be apply'd, or the Tails of these already fixed must be cut off; for then, the Blood running thro' them, they will be induced to draw more. It, after a sufficient Evacuation, they do not spontaneously separate themselves from the Skin, upon sprinkling a little Salt or Ashes, they immediately drop off; and this Method is best, because pulling them away, often causes an Inflammation, or Tumor. The Leech, which is whole, may be put again into the clean Water, and kept for future Use; but

but that which is cut, certainly dies. The Wound may be washed with warm Water, and dressed with a vulnerary Plaster, though it usually heals without. Those who desire to know more of these Insects, may read *Aldrovandus*, *Gesner*, *Botallus*, *Petr. Paul. Magnus*, *Sebizius*, *Heurnius*, *Crausius*, *Schroder*, and *Stahl*, who have treated of them more at large.

When Leeches fall off, the Hæmorrhage generally continues for some time, as twelve Hours, and frequently longer. Upon this Occasion, as the Blood cannot be receiv'd in Vessels, but is absorb'd by Linen, it makes a great Appearance, and seems much more than it really is: This alarms the Patient, and puts the Attendants into an unnecessary Consternation, upon a Supposition, that the Hæmorrhage will be so profuse, as to occasion Faintings, and Death, neither of which is likely to ensue; for the Bleeding may, at any time, be stop't by Compressure, or the Application of Styptics; as Brandy, with a little powder'd Colcothar. But it is more frequently necessary to bathe the Part wounded, with warm Water, in order to encourage a Discharge of Blood, when it does not flow in Quantities sufficient to answer the End propos'd.

HIRUNDINARIA. See **ASCLEPIAS**.

HIRUNDO. A kind of Bird commonly call'd the Swallow, of which *Dale* mentions four Species; which are,

1. *Hirundo*. Offic. Schrod. 5. 320. Ind. Med. 59. Bellon. des Oyse. 379. Mer. Pin. 177. *Hirundo domestica*. Aldrov. Ornith. 2. 662. Jonf. de Avib. 83. Gesn. de Avib. 492. Charlt. Exer. 95. Will. Ornith. 155. Raii Ornith. 212. Ejusd. Synop. A. 71. *Hirundo vulgaris*. Scalig. **THE SWALLOW.**

Of medicinal Use are the whole Bird, its Heart, Blood, Nest, and Dung. Swallows, with their Young, burnt to Ashes, are a Specific in the Epilepsy, and for Dulness of Sight, and Lippitude, if made into a Litus with Honey; it also cures the Quinsy, and Inflammations of the Uvula. The Heart also is said to be good against the Epilepsy, and to strengthen the Memory; some eat it against a Quartan. The Blood is thought to be of singular Benefit to the Eyes. The Nest helps the Quinsy, and cures Redness of the Eyes, and heals the Bite of a Viper, if apply'd to the Place. The Dung heats mightily, and discusses, being of an acrimonious Quality. It is of excellent Service against the Bite of a mad Dog, in the Colic, and nephritic Disorders, and excites the Belly to Excretion. *Celsus* tells us, *Lib. 4. Cap. 4.* that it was commonly said, "that whoever eats a young Swallow, shall be free from all Danger of a Quinsy for a whole Year."

2. *Hirundo riparia*. Schrod. 5. 320. Mer. Pin. 178. Aldrov. Ornith. 2. 694. Gesn. de Avib. 507. Jonf. de Avib. 84. Charlt. Exer. 96. Raii Ornith. 213. Ejusd. Synop. A. 71. Will. Ornith. 156. **THE SAND MARTIN.**

The whole Bird, and its Blood, are used in Medicine, with the same Intentions as the preceding.

3. The third Sort of *Hirundo* is the *Apos*; which see.

4. *Hirundo Indica*. Offic. *Hirundo maritima*. Act. Philos. Lond. N^o 285 p. 1396. *Hirundo Sinensis nido eduli Bontii*. Will. Ornith. 15. Raii Ornith. 215. Ejusd. Synop. A. 72. *Hirundo Chinensis*. Bont. 66. *An Hirundo exotica aquatica*. Jonf. Mantiss? **THE IND AN SWALLOW.**

It is found in the maritime Places of *China*. What relates to Medicine, is its Nest, which is of a hemispherical Figure, of the Size of a Goose's Egg, pellucid, and in Substance resembling the *Ichthyocolla*. It stimulates to Venerly: It is a Question, whether they are made of the Spermi of certain Fishes, or of the Gum of some Plants growing on the Rocks. In *China* these Nests are esteem'd delicious Food.

HISMAT. Spuma Argenti, or Litharge. *Rulandus*.

HISPANICUM viride, Verdegriſe. *Rulandus*.

HISPIDIſAS, Hairiness in general; but in a particular Sense it is used to signify either the Disease called **PHALANGOSIS**, or that other named **DISTICHIASIS**. See these Words.

HISPIDULA. A Name for the **HELICHRYSUM**; *montanum*; *flore rotundiore*.

HISTORIA, History, in Medicine, is usually restrain'd to signify the same as *Casus Medicus*, or *Observatio medica*, a medicinal Case, or Observation. See **CASUS**.

HISTOS, *ισός*, properly the Mast of a Ship; but in *Hippocrates*, *Lib. de Artic.* is an erect Piece of Wood, on the Top of which is placed another horizontally, whence depends a Pulley, constituting together a surgical Machine for restoring a Gibbosity of the Spine.

HOAXACAN, *Hern.* The same as *Guaiacum*. *Raii Index*.

HOBUS, *Hovus Indica Pruni Fæle*. *J. B. Ovied.*

A Species of Plum-tree growing in the *West Indies*, and bearing a Plum of the Shape of our Damascen-plums, and yellow when ripe. The Plum is of an agreeable Taste, being somewhat acrimonious, and is easy of Digestion, but difficult to chew, because it is full of Fibres; some take it for a Species of *Myrobalant*.

From the tender Tops of the Branches, and the Bark, the *Indians* prepare a sweet-scented Water, which is good to refresh tired Limbs; they also use it in their Baths in *New-Spain*. The Fruit of the Tree strengthens the Stomach, and somewhat loosens

the Belly. If Incisions be made in the Root, there distils a Liqueur, which is good to drink. *Lemery des Drogues*.

HOCIAMSANUM, Agrimony. *Marcellus Empiricus*, *Cap. 20.*

HOEDUS. See **CAPER**.

HOITZLOXITL. See *Balsamum Peruanum*.

HOLCAS, *ὄλκας*, in *Hippocr. Lib. de Flat.* is a Ship of Burden. *Foesius*.

HOLCE, *ὄλκῃ*, the Name of a Weight, the same as *Drachma*. *Goræus* from *Galen*. But properly, as in *Dioscorides*, it signifies the same as *σταθμός* (*Stathmos*), a Weight in general.

HOLCIMOS, *ὀλκίμος*, from *ἐλκω*, to draw, tractile, is an Epithet apply'd to what may be drawn out at Length, and still preserve its Continuity, which is the Property of viscid and glutinous Substances. *Galen*, *Com. 2. in Lib. de Artic.* on a Passage where the Word in *Hippocrates* is *ἐνὸλκίμον* (*euolcimon*), easily tractile. *Holcimos* is also spoken of the Liver affected with a Tumor. *Galen de Loc. affect.*

HOLCUS, *Plin.* A Name for the *Hordeum*; *spontanæum*; *spurium*.

HOLERA, an antiquated Word for *Cholera*; sometimes it was written for *Olera*, the Plural of *Olus*. *Castellus*.

HOLIPPÆ, very thin Cakes, prepar'd of fine Flour and Sugar, pour'd upon a hot Iron Plate figured, and then set to the Fire. The Name is now appropriated to Sweet-meats, tho' there are extant, in Dispensatories, Prescriptions for purging *Holippæ*. *Castellus*.

HOLLI, the *Indian* Name for what the *Spaniards* call *Ulli*; which is a very useful resinous Liqueur, that distils from the Tree *Holquahuytl*, or *Chilli*: This is sometimes, tho' but rarely, mixed with Chocolate; and especially, in case of a Dysentery and Diarrhœa, when, with four Ounces of *Cacao*, they mix one Ounce of *Holli*. But, by way of Precaution, the *Cacao*, on account of its Pinguiousness, and the Gum *Holli*, because of its extraordinary Tenaciousness and Viscidity, must first be torrefy'd, to prevent their obstructing the Viscera, and producing a Cachexy. *Ray, Hist. Plant.*

HOLMISCOS, *ὀλμίσκος*. See **MORTARIOLUM**.

HOLMOS, *ὀλμος*. See **MORTARIUM**. *Holmos* is also the Trunk of the Body, separate from the Limbs. *Castellus*.

HOLOPHLYCTIDES. The same as **PHLYCTIDES**, or **PHLYCTÆNÆ**; which see.

HOLOSCHOENOS. A Name for the *Juncus*; *aquaticus*; *maximus*.

HIOLOSTEO AFFINIS. See **MYOSUROS**.

HOLOSTEON. The Name of a Fish which is found in the River Nile: It is of no Use in Medicine. *Lemery des Drogues*.

HOLOSTEUM MINIMUM. A Name for the *Alfne*; *verna*; *glabra*; which see.

HOLOSTIUM. A Name for the *Plantago*; *angustifolia*; *albida*; *Hispanica*.

HOLOTHURION; whether a Plant, or Animal, or of the Class of Zoophytes, is not certain; but it deserves to be mention'd, on account of an Observation made by *Bontius*, *Obs. select. Med. Ind. annex.* that excessive Drinking of a Liqueur, prepar'd of Rice and *Holothurium*, and called *Arac*, was the Cause of a deplorable, complicated, chronic Disease, in a certain Case that fell under his Cognizance; for which Reason he calls it, a cursed Liqueur. *Castellus*.

HOLOTONICOS, *ὁλοτονικός*, from *ὅλος*, whole, and *τείνω*, to stretch, is spoken of an universal Convulsion, or Rigor of the whole Body; called also *Tetanus*. *Castellus*.

HOLSEBON, **HELSATON**, **HELSEBON**. Common Salt prepar'd. *Rulandus*.

HOMÆOMERES, *ὁμοιομερής*, from *ὅμοιος*, similar, and *μέρος*, a Part, is an Epithet of any thing which consists of similar Parts.

HOMERDA, human Dung. *Castellus*.

HOMILIA, *ὁμιλία*, in *Hippocrates*, according to *Erotian*, bears three Senses: First, It signifies Conversation and Discourse, as *Lib. de Medico*. Secondly, A Connexion and Cohesion of the Parts, and especially of the Bones, *Lib. de Artic.* where the Verb *ὁμιλῶ* is used. And, lastly, It means Exercise; as in the Book just quoted. *Erotian apud Hippocratem*.

HOMO, Man, is not only the Subject of Medicine, but contributes with his Body to the *Materia medica*.

Official Simples, furnished from the Parts of the human Body, whilst alive, are the Hairs, Nails, Saliva, Ear-wax, Sweat, Milk, Menſes, Secundines, Urine, Dung, Semen, Blood, the Stones of the Bladder, which are the *Bezoar Microcosmi*, and the Membrane which covers the Head of the Fœtus.

The Hair is commended for the Production of Hair, for the Jaundice, Luxations, and for stopping an Hæmorrhage. The Nails are said to provoke Vomiting, and to be an Hydragogue in Dropsies. The Saliva of a Man fasting is recommended against venomous Bites; as those of Serpents, a mad Dog, and the like. The Ear-wax is said to be a present Remedy in the Colic; outwardly used, it cures the Stings of Scorpions, conglutinates Wounds, and Fissures, and Cuts in the Skin. See **CERUMEN**.

RUMEN. The *Sweat* is said to be effectual against the Scrophula, if it be mixed with the Herb and Root of Mullein, and wrapt up in the Leaf, and so applied to the Place. The *menstrual Blood*, of the first Flux, dried, is commended, taken inwardly, for the Stone, and the Epilepsy: Externally used, it eases the Pains of the Gout; it is also said to be of Service in the Pestilence, Abscesses, and Carbuncles; it cures the Erysipelas, and cleanses the Face from Pustules. The *Secundines* are extol'd for removing strumous Tumors in the Throat, against the Epilepsy, and for invalidating the Effects of Philtra, or Love-potions; for exterminating a Mole and a Foetus, and for destroying noxious Vermin, and Animals, even such as are procured in the Body by unlawful Arts. The *Urine* heats, dries, resolves, absterges, discusses, cleanses, resists Putrefaction; and is, therefore, of principal Service in Obstructions of the Liver, Spleen, Gall-bladder, in the Dropsy, Jaundice, and as a Preservative against the Plague. A Draught of the Husband's Urine, which the old Women call *Water of Castor*, is said to facilitate the Delivery of the Wife in hard Labour: Outwardly used, it dries the Habit, dissolves Tumors, cleanses Wounds, even though poison'd, prevents a Gangrene, loosens the Belly, absterges Scurf from the Head, mitigates the Paroxysms of Fevers, cures Exulcerations of the Ears, helps Redness of the Eyes, removes Tremblings of the Limbs, discusses Tumors of the Uvula, and eases Pains of the Spleen: There is prepar'd of it a *Sal Ammoniac*, which is an artificial striated Salt, made into Cakes, of a white Colour, and of a bitterish pungent Taste; the Method of Preparation is, by boiling together Urine, Soot, and common Salt; choose what is pure and white.

There seem to be some Foot-steps of a natural *Sal Armoniac* in *Dioscorides*, *Pliny*, and other antient Authors, who describe it as found under the Sands of *Libya*; but no such thing is to be found in the Shops at present; nor is it known what it was. See the Virtues of artificial *Sal Ammoniac* under **AMMONIACUM**.

Human *Dung* is mollifying, maturating, and anodyne; whence it is very serviceable in mitigating Pains excited by Charms, for ripening pestilential Carbuncles, and for a Phlegmon, particularly of the Throat, as in a Quinsey, and to prevent an Inflammation in Wounds: Some even prescribe it inwardly for the Quinsey, to repress the Paroxysms of Fevers, and for the Epilepsy. The *Semen*, or *Sperma*, is used by some for dissolving the malific Influence of Spells causing Impotence; and of the same is prepar'd a magnetic Mummy, which serves for a Philtre. The *Blood*, drank recent and hot, is said to be effectual against the Epilepsy, if the Patient, afterwards, uses vehement Motion, or Running till he sweats; it stops all sorts of Hæmorrhages: Used outwardly, it, also, represses all Eruptions of Blood, and, especially, from the Nose. The *Stone* in the human Bladder dissolves the Stone, and all tartarous Matter in any Part, and expels the same; for which Reason, it frees from all Obstructions. The *Membrane*, which sometimes surrounds the Head of the Foetus, is said to be of extraordinary Efficacy against the Pain of the Colic.

Official Simples, taken from the human Carcase, are, the *Mummy*, which is a resinous, harden'd, black, shining Surface, of a somewhat acrid and bitterish Taste, and of a fragrant Smell. Under the Name of *Mummy* are comprehended, first, The Mummy of the *Arabians*, which is a Liquament, or concreted Liquor, obtain'd in Sepulchres, by Exudation from Carcases, embalm'd with Aloes, Myrrh, and Balsam. If this Mummy could be procured right and genuine, it would be preferable to the other Sorts. The second kind of Mummy is the *Egyptian*, which is a Liquament of Carcases, season'd with Pissaspaltus. A third Substance, which goes by the Name of *Mummy*, is a Carcase torrefied under the Sand, by the Heat of the Sun; but such a one is seldom to be met with in our Country. The other Parts useful in Medicine are the Skin, Fat, Bones, Marrow, Cranium, and Heart.

Mummy resolves coagulated Blood, and is said to be effectual in purging the Head, against pungent Pains of the Spleen, a Cough, Inflation of the Body, Obstruction of the Menfes, and other uterine Affections; outwardly, it is of Service for consolidating Wounds. The *Skin* is recommended in difficult Labour, and hysteric Affections, and for a Wuthering and Contraction of the Joints. The *Fat* strengthens, discusses, eases Pains, cures Contractions, mollifies the Hardness of Cicatrices, and fills up the Pits left by the Measles. The *Bones*, dried, discuss, astringe, stop all sorts of Fluxes, and are, therefore, useful in a Catarrh, Flux of the Menfes, Dysentery, and Lientery; and mitigate Pains of the Joints. The *Marrow* is highly commended for Contractions of the Limbs. The *Cranium* is found, by Experience, to be good for Diseases of the Head, and particularly for the Epilepsy; for which Reason it is an Ingredient in several antiepileptic Compositions. The *Os triquetrum*, or triangular Bone of the Temple, is commended as a specific Remedy for the Epilepsy: The *Heart* also cures the same Distemper. *Schrod. Dale.*

HOMOCHROEA, *ὁμοχρεια*, from *ὁμοιός*, similar, and *χρῆς*, the Skin, is an Equability of the Superficies, or a Smoothness of

the exterior Habit of the Body; or of any Part thereof. *Hippocrates, de Cap. Vuln. & de Fract.*

HOMOGENES, *ὁμογενής*, from *ὁμοιός*, similar, and *γένος*, a Kind; homogeneous, or of the same Kind; is applied to every thing that always retains the same Nature, and keeps one constant Tenor: Thus a Fever is said to be *ὁμογενής*, homogeneous, when it is continual and uniform. *Gorræus.*

HOMOLINON. Crude Flax. In medicinal Authors, it generally imports, according to *Salmasius*, coarse Cloth made of Flax not previously macerated and whiten'd, which the Antients used in their Baths by way of Towel.

HOMONOPAGIA. A Head-ach. *Arculaanus.*

HOMONYMIA. Homonymy, or Equivocation; that is, the comprehending various Things under one Name: This has caused much Confusion in the *Materia Medica*.

HOMAPLATÆ, or **OMOPLATÆ**. The Scapulæ, or Shoulder-blades.

HOMORUSIA. The Name of a Medicine described by *Avicenna*, and said to be good for Disorders of the Liver and Spleen, to provoke Urine, and break the Stone in the urinary Passages.

HOMOTONOS, *ὁμότονος*. Equal, equable, or proceeding in the same Tenor. It is an Epithet apply'd to Fevers, which proceed in the same Tenor from the Beginning to the End, without either Relaxation or Exasperation.

HOMUNCULUS. See **ADOLESCENS**.

HOPLE, *ὅπλη*. The Hoof of graminivorous Animals.

HOPLITODROMOS, *ὀπλιτοδρόμος*, from *ὅπλον*, Armour, and *δρέμω*, to run. A Person who took his Exercises arm'd, in order to render them more violent.

HOPLOCHRISMA, *ὀπλόχρυσμα*, from *ὅπλον*, Armour, and *χρῆσμα*, an Ointment. The Dressing a Weapon, or wounding Instrument, with a View of curing the Wound made therewith by this means.

HOPLOMOCHLION. The Name of an Instrument inclosing the whole Body, like Armour, of which *Fabricius ab Aquapendente* gives a Figure in his surgical Works.

HOPLON, *ὅπλον*. Besides the common Signification of this Word, which is, a military Weapon, it imports a Cord, or Rope, in medicinal Authors.

HORA, *ἡρα*. Besides the common Acceptation of this Word, it imports that Season of the Year which begins about the Dog-days, when the Autumnal Fruits begin to be ripe. Hence

HORÆUS, *ὥραιος*. An Epithet for Fruit; properly that which is ripe about Autumn. But it is us'd by modern Authors to express any Fruits which are perfectly ripe. See **ALIMENTA**.

I will not be certain, if I have not inadvertently translated *Fruētus horæi*, unripe Fruits, which is an Error.

HORDEOLUM. A Disorder of the Eye. See **CHALAZA**.

HORDEUM.

The Characters are;

It has a thick Spike; the Calyx, Husk, Awns, and Flower, are like those of Wheat and Rye, but the Awns are rough. The Seed is swelling and sharp-pointed at both Ends, and closely united to its Husk.

Boerhaave mentions seven Species of Hordeum; which are,

1. Hordeum; polystichum; hybernum. C. B. P. 22. *Theat.* 438.

2. Hordeum; polystichum; verum. C. B. P. 22. *Theat.* 439.

3. Hordeum; distichon, quod Spica binos ordines habeat *Plinio*. C. B. P. 23. *Tourn. Inst.* 513. *Boerh. Ind. A.* 2. 159. *Hordeum*. *Offic.* *Hordeum distichum*. *Ger.* 66. *Emac.* 70. *J. B.* 2. 429. *Park. Theat.* 1130. *Rai Hist.* 2. 1243. *Synop.* 3. 388. C. B. *Theat.* 440. **BARLEY**.

It is sown in Fields in the Spring, and the Seeds, or Corns, are us'd. Barley is cooling and drying, absterfve, aperitive, and digestive, emollient, diuretic, and nutritive. The Preparations of it is *Byne*, *five Malta*, *Malt*; of which is made *Cerevisia*, *Wort*, which, boil'd with Hops, is call'd *Biera*, *Beer*; without Hops, *Ala*, *Ale*. See **ALLA**. See **FARINA**.

Barley, however prepar'd, never heats the Body, but moistens, or dries, according to its various Ways of Preparation. Thus, when it is boil'd, as in a Pisan, it moistens; when it is torrefied, as in Polenta, it dries. Barley differs from Wheat, as it generates a mild and detergent Juice; whereas that of Wheat is thick and viscid, and has somewhat of an obstruent Quality. In antient times, Bread was made of the Flour of Barley, and in Use among the Subjects of very rich and potent States, for Instance, the *Armenians*; and now, in this latter Age, Barley-loaves are still prepar'd, but principally by the poorer Sort, and to supply a Dearth of Wheat. But, however, at present it is but of little Value among us, no more than it was among the *Romans* in *Pliny's* time, for making of Bread, or any thing of that Kind; but it is in general Use, and high Esteem, for making of Beer; and is as necessary to the Northern People, on account of Drink, as Wheat is for Bread.

H O R

There are various Ways of preparing Barley, either as simple or medicinal Aliment. A Cataplasm made of Barley-flour, and Butter, is an anodyne Remedy against all kinds of Pain. The Polenta of Barley, says *Sim. Paulli*, boil'd in Vinegar, and strain'd through a Linen Cloth, frequently mitigates the intolerable Pain of the Teeth, being us'd as a Collution, or rather held for some time in the Mouth. A Kinsman of mine, says the same Author, labouring under most violent Pains of the Stone, with an intolerable Ischury, after trying, in vain, the usual Remedies, desir'd my Assistance. I took as much Polenta as I thought fit, well bruise'd, and hot out of the Kettle, with an equal Quantity of Hops; and fry'd them together, with Plenty of Butter, [Oil might serve the turn] and made it into a Cataplasm; which I folded in a Linen Cloth, and applied it, as hot as he could suffer it, to the Pecten and Perinaeum. Within a Quarter of an Hour, the Patient receiv'd Relief, and was freed from his Torments, to the great Joy of his Family: And I have since us'd the same Cataplasm on several Patients afflicted with the Stone and Dysury, with the like happy Success. *Raii Hist. Plant.*

Tho. Bartholine cur'd an epidemical Pleurisy, only by a Decoction of Barley. *Ephemer. German. An. 2. Obs. 2.* For Preparations of Barley, see PRISANA, POLENTA, MALTUM, and CEREVISIA.

4. Hordeum; distichum; spica brevior & latior; granis confertis. *Raii Hist. 1243. Zeocriton; five Oryza Germanica. C. B. P. 22. Theat. 421.*

5. Hordeum; distichum spica nitida; Zea, seu Briza nuncupatum. See BRIZA.

6. Hordeum; spontaneum; spurium; Holcus Plinii Anguilare. *Lob. Ic. 30.*

7. Gramen Gras Montbelgardensium. *J. B. 1. 438. Festuca, Graminea glumis hirsutis. C. B. P. 9. Theat. 143. Boerb. Ind. alt. Plant. Vol. 2. p. 159.*

Besides the foregoing Species of Hordeum, *Dale* mentions the two following; which are,

1. Hordeum, mundatum & perlatum. *Offic. FRENCH, and PEARL BARLEY.*

What we call French Barley, because it is usually imported from France, is no other than Barley decorticated in a Mill, adapted to that Purpose. See *Dr. Plot's Nat. Hist. of Oxfordshire.* The best is what is round, white, and bright. What we call Pearl-barley, because it resembles Scots Pearls, is prepar'd after the same manner; only is twice or thrice subjected to the Mill, in order to be ground, and made less. Chuse that which is small, white, has Sprinklings of the Flour on all Sides, new, and not musty. Some, you are to observe, will have Pearl-barley made of Millet, because it is so small; others, of Wheat. Both of them agree in Virtues with the common Barley, only are more nutritive.

2. Hordeum causticum. See CEVADILLA.

HORDEUM nudum. A Name for the Triticum; spica Hordei Londinensibus.

HORIZON, in the spagirie Language, is the Mercury of Gold. *Rulandus.* The Aurum horizontale, otherwise called Mercurius Corallinus, is said to be Mercury fix'd by the Liquor Alabest. See AURUM.

HORMINUM.

The Characters are;

It resembles the Sclarea, or Clary, in all respects; only the Galea is hollow, not falcated, or hooked, and shorter.

Boerhaave mentions fourteen Species of this Plant; which are,

1. Horminum; sylvestre; Lavandulae flore. *C. B. P. 239. Park. Theat. 57. Raii Hist. 545. Synop. 3. 237. Tourn. Inst. 178. Boerb. Ind. A. 165. Oculus Christi. Offic. Horminum sylvestre. Ger. 628. Emac. 771. Gallitrichis affinis Maru, si non genus aliquod, Sclarea Hispanica. J. B. 3. 313. WILD CLARY.*

The Root of the wild Clary is thick and woody, not dying every Year, as the Sclarea does. The lower Leaves grow upon pretty long Foot-stalks, being about three Inches long, and about an Inch broad, cut into several Parts, and serrated about the Edges, and somewhat rugged and wrinkled. The Stalks are square, and somewhat hairy; usually leaning towards the Ground, not so tall as the Sclarea, having broader and shorter Leaves, set two opposite at a Joint, without Foot-stalks; serrated about the Edges. The Flowers grow in loose Verticils, usually six in a Whorle; they are much less than the Sclarea, having a small Galea appearing but little above the Calyx, of a deep blue Colour. The Whorles stand at some Distance, having each two very small Leaves set under it. The Calyx is pretty large, and cut into two Parts, the lower being slit in the Middle; and the upper divided into two Cavities, by a Partition in the Middle, and contains four pretty large oval, smooth, black Seeds. The Whole has a pretty strong and not unpleasant Smell. It grows frequently in gravelly Grounds, and flowers in June and July. The Seed is principally us'd.

This is supposed to have the same Virtues with the Sclarea, but in a lower Degree. But what this Plant is remarkable for, is the Seed, of which one, put into the Eye, will cleanse it of any thing that is offensive, and clear away Redness, Inflammations, or Specks.

H O R

It delights in a gravelly Soil, and flowers in June. See SCLAREA.

2. Horminum; pratense; flore minimo. *Schol. Bot. Par. 68.*

3. Horminum; vernum; folio Betonicae, flore coeruleo.

4. Horminum; foliis alatis, hirsutis; verticillis non foliosis; caule & cauliculis rubris.

5. Horminum; sativum. *Offic. C. B. P. 238. Raii Hist. 1. 542. Boerb. Ind. A. 166. Horminum sativum genuinum Dioscoridis. Park. Theat. 56. Horminum sylvestre, foliis purpureis. Ger. 628. Emac. 771. Horminum coma purpureo-violacea. J. B. 3. 178. Tourn. Inst. 178. PURPLE SPIKED CLARY.*

With us it is cultivated in the Gardens of the Curious, and flowers in July. The Seed is us'd; which, drank in Wine, is accounted a Provocative to Venery. Mix'd with Honey, it clears the Eye from white Specks, and Albugines; it extracts Splinters out of the Body. *Dioscorides.* It stimulates the Nerves, and inebriates; and is of excellent Service in a Dropsy, being of a heating Quality. *Dale.*

6. Horminum; coma rubra. *J. B. 3. 309.*

7. Horminum; coma viridi. *T. 178.*

8. Horminum; Verbenae laciniis. *Triumpf.*

9. Horminum; folio quercu. *Volk.*

10. Horminum; Aegyptium; minimum; ramosissimum. *Lippi.*

11. Horminum; sativo simile; coma purpurea; flore vario. *H. Cath.*

12. Horminum; purpureo-violaceum; rigidius. *Suppl. alt.*

13. Horminum; minus; procumbens; folio Betonicae.

14. Horminum; foliis alatis; flore violaceo. *Sher. Triumpfett. Boerb. Ind. alt. Plant. Vol. 1. p. 165.*

Besides the foregoing Species of Horminum, *Dale* mentions the following:

Horminum sylvestre. Offic. Horminum sylvestre latifolium. Ger. Emac. 771. Raii Hist. 1. 546. Horminum sylvestre latifolium verticillatum. C. B. Pin. 238. Tourn. Inst. 178. Horminum Germanicum humile. Park. Theat. 56. Horminum Gallitricho affinis planta, Horminum sylvestre latifolium Clusio. J. B. 3. 314. WILD CLARY.

It grows in many Places of Germany, and flowers in June. The Seeds are in Use, which are of greater Efficacy than those of the Garden-sort.

Horminum is, also, a Name for several Species of SCLAREA; which see.

HORNUS, or HORNOTINUS. A Species of Wheat, the same as SETANIOS, which see.

HORRIDUS, or HORRIFICA. In Medicine it imports either rough, as when the Skin is rough, like that of a Goose; or shivering, or attended with Shiverings; and is an Epithet of Fevers, importing the same as PHRICODES.

HORROR.

We are taught by *Galen, Com. 7. in Aph.* that a Horror is an Affection proceeding from depraved Humours passing through the Skin. And, *de Sympt. Caus.* he tells us, "This Disorder is an unequal Motion, or universal Concussion, of the Skin, as is also a Rigor of the whole Body; but these two Affections are distinguished in this, that a Horror is a slight Motion, but a Rigor a great and violent one." Hence some justly make a Horror to be a small Rigor. *Galen, Lib. 2. de Diff. Feb.* says, it is a Medium between a Rigor and a Refrigeration. Horrors are produced by all such things as cause a Rigor; for, as *Galen, Com. in 7 Aph.* observes, Horrors are effected in Baking as well by Heat as Cold, by a Concourse of acrimonious Humours to the Skin; for, as the same Author tells us, *Com. 3. in 6 Epidem.* all Bodies full of bad Juices, when vehemently heated, as by a Fever, or a Phlegmon, are affected with a Horror. And the Author of the *Prorrhetic. Lib. 1.* writes, that Horrors may be excited by an internal Phlegmon, especially such Horrors as are transient, and soon pass into an Anxiety. *Galen, de Causis Sympt. Lib. 2. Cap. 5.* thus writes: "My Sentiments, he says, of this Matter, are, that the same Person who, while at Rest, was only sensible of an Inequality, upon putting himself in Motion, is seiz'd with a Horror; and, upon using Exercise, with a shaking Rigor." And, a little after, he says, "We know some, who, labouring under Crudities, were easy while they were at Rest; but, after they had enter'd the Bath, or stood in the Sun, by heating, rarefying, and converting into Spirits, the excrementitious Parts, which before remained quiet, have rais'd a Commotion, in the same manner as Anger is excited and kindled by the Passions." When those excrementitious Parts, as being either bilious or pituitous, contract an Acrimony, as it usually happens from an extraordinary Putrefaction, they are put in Motion, and, being transmitted to the Skin, are there the Cause of an Horror. Having thus given the Definition and Causes of a Horror, we are now to shew what may be predicted from them.

First, then, Horrors are never good when they succeed continual Fevers, those excepted, which are themselves succeeded by an Intermission of continual Fevers; for they are good: As, for Instance, when a Coldness, Horror, or Rigor, seizes the

Patient

Patient under a burning Fever, at the time when the Paroxysm is expected; for they are Signs, that Nature is very strong, and expels the vitious Humours from the Veins. Good critical Horrors are also very salutary, appearing when the Disease is, in some measure, concocted, and succeeded by some good Evacuation or Purgation. Of this Nature was that observ'd by Hippocrates of the Virgin of Larissa, 3 Epid. Sect. 3. Aeg. 12. of whom he says, "On the sixth Day much Blood came from her Nose; she was seiz'd with a Horror, and immediately after with a copious and hot Sweat over all the Body, attended with a Crisis, upon which the Fever left her." When Signs of Concoction, therefore, appear, together with other critical Signs, if a Horror seizes the Patient, it is a good Sign; for it usually precedes critical Evacuations and Purgations. To this Purpose the Author of the *Coac. Praenot.* writes, that "Patients under a Horror, Anxiety, and Lassitude, attended with a Pain in the Loins, are subject to a Flux of the Belly." Such Horrors, in our Opinion, are no Signs of a Haemorrhage in particular, but of a critical Perturbation in general, according to the Observation of the Author of the *Prorrhetica*, 149. "If critical Sweats, he says, succeed an Horror, and this Horror returns the next Day upon the Patient, with unaccountable Want of Sleep, expect an Haemorrhage from the Nostrils." But this is an uncertain Prediction, as Galen affirms in his Commentary on the Place. A Horror, therefore, is good only when succeeded by some Intermission of a continual Fever, or when it is a good critical Sign.

Bad Horrors are such as succeed an Empyema, or Tabes, bad critical ones, and such as happen in the Beginning of pestilential Distempers; which last are owing to a very great Depravation of the Humours, and a Weakness of Nature, which makes Efforts to move the Humours, but finds itself too feeble; which more plainly appears to be the Case, when the Patient, after an Horror, recovers but little Heat. Such was the Case of those, of whom Hippocrates speaks, 3 Epid. Sect. 3. who laboured under pestilential Fevers; "they were seiz'd, he says, with a Horror, and were delirious a little before Death." The same was particularly observ'd of Crito, who died the third Day of a pestilential Tumor. 1 Epid. Sect. 3. Aeg. 9. "He took his Bed, says Hippocrates, the same Day, [he was seiz'd with a violent Pain in his great Toe] being afflicted with a Horror, Nausea, and could get but little Heat." This was also the Case of Aristocrates, 7 Epid. Text 52. who was seiz'd with an Horror, and dy'd the third Day of a pestilential Carbuncle.

Bad critical Horrors are, according to Galen, such as are dubious and difficult to be determin'd, or deadly: Such is that, 7 Aph. 4. where a Horror, succeeding a Sweat, is pronounced not beneficial; and the Author of 1 *Prorrhet.* 83. tells us, that "a Pain in the Loins, translated upon the Stomach, and accompanied with a Fever, Horror, and Vomiting of much thin and aqueous Matter, a Delirium, and Loss of Voice, ends, at last, in black Vomiting and Death." Again, *Coac.* 8. "Frequent Horrors of the Back, which are soon transient, shew the Strength of the Disorder." Hence it appears, that Horrors, succeeding bad and destructive Vomiting, are of the bad critical Kind; which, as Galen observes, *Com. in 7 Aph.* 4. either import a difficult Crisis, that is, when not attended with mortal Symptoms; or fatal, when some mortal Sign attends them. In the *Coac. Praefag.* just quoted, it is said, that those Horrors are of a dubious Nature, which frequently recur, and soon pass off; which, in 1 *Prorrhet.* 75. is thus express'd: "Frequent Horrors from the Back, which are soon transient, are difficult to be supported, and indicate a painful Suppression of the Urine." The same is still more explicitly and justly declared in the *Coac. Praefag.* above cited; where we read, "that such Horrors are difficult to be supported, as indicating a Suppression of Urine, and the Strength of the Disease; but a thin or cold Sweat supervening, is a very bad Sign." Of these fatal Horrors Hippocrates speaks, 3 Epid. Sect. 3. "All these [Sorts of Fevers] he there says, were attended with great Perturbations: Many were disturb'd in the Belly, had Horrors, with Sweats not critical, and Urine more in Quantity than what was drank, and not thick, or shewing any Signs of Concoction." Such were the Horrors observ'd in the Woman who lay ill at the cold Springs in Thasos; and of this Kind are the bad critical Horrors, which, with mortal Signs, always portend Death.

In the last Place, there are bad Horrors, which are not removed by a Fever, but are accompanied with very bad Evacuations, of which we read, *Coac.* 36. where it is said, that "they who labour under a Lassitude, with a Horror, and a Sweat, in a manner of a Crisis, and a sudden Return of Heat, are in a bad State; and the more, if, besides these Symptoms, Blood also distils from the Nose." Frequent Horrors are Indications of a Tabes; for we find, they were common Attendants of that extraordinary and mortal Tabes, describ'd by Hippocrates, 3 Epid. Sect. 3. where he says, "the Patients were seiz'd with a Horror and Delirium just before their Death." However, frequent Horrors are not of themselves sufficient to indicate a Tabes,

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Without the Concurrence of some other Signs; such as a Difficulty of Breathing, and a constant Fever, which is expectorated at Night, with Sweats, a Desire of Coughing, a Pain, and other Signs, by which Hippocrates, *Lib. Prognost.* teaches us how to know those who labour under an Empyema. But, in a continual Fever, attended with an inward Phlegmon, or a Putrefaction of Matter in the Lungs, many, frequent, and irregular Horrors, with a Pain, and Difficulty of Respiration, always indicate a Suppuration or Purulence; and this seems to be the Sentiment of the Author of *Coac.* 17. where he says, "that frequent Horrors, and Difficulty of Breathing, under Pains, indicate a Tabes," as they are Signs of Pus, and a future Tabes from thence. For, in a malignant Haemoptoe, or where the Humours in the Lungs, or an Inflammation, is converted into a Suppuration, there are always Horrors, and a Cough, which are excited from an Irritation of the Membranes of the Lungs or Thorax, by the Acrimony of the putrid Humour. *Prosper Alpinus de Praefag. Vit. & Mort.*

HORTULANUS; named also *Milliaria* and *Cynocramus*, the Ortolan: It is a Bird little less than a Lark, very fat, and of different Colours; the Beak and Legs are inclined to red. It feeds upon several Sorts of Seeds, but prefers Millet, which fattens it most. It is found in warm Countries, such as *Provence*, *Dauphiny*, *Languedoc*, and *Italy*. The Flesh is tender, delicious, juicy, and of an exquisite Taste; and as it has but few viscous and gross Humours, but abounds with oily and balsamic Juices, and volatile Salts, so it is reckon'd a Restorative, Strengthener, and Nourisher; increases the seminal Fluid, is easy of Digestion, produces good Juice, and is supposed to promote the Menfes. Its Fat is of a lenifying, dissolving, and softening Quality.

HORTUS. The Female genital Organs are thus call'd.

HOTTONIA, *Water-violet.*

The Characters are;

It hath a Rose-shaped Flower, consisting of one Leaf, which is divided into five Parts, almost to the Bottom; in the Centre of the Flower arises the Pointal, which afterwards becomes a cylindrical Fruit, in which are contained several spherical Seeds.

We have but one Sort of this Plant; which is,

Hottonia. *Boerh. Ind. alt. Plant. Vol. 1. p. 206. WATER-VIOLET.*

This Plant is very common in deep standing Waters and Ditches, in several Parts of England. The Leaves of this Plant appear on the Surface of the Water the Beginning of April; and, in May, the Flowers appear on pretty long naked Stalks, growing in a Spike. These Flowers are of a fine Rose-colour, which, together with their fine-cut Leaves, make a beautiful Appearance on the Water. *Miller's Dictionary, Vol. 2.*

There are no medicinal Virtues attributed to this Plant, that I know of.

HOXOCOQUAMOCLIT. A Name for the *Sena, orientalis, fruticosa, Sophera dicta.*

HUART. The Name of a beautiful aquatic Fowl, found in Canada. The Fat is said to be resolute, emollient, and good to fortify the Nerves.

HUCHA. The Name of a Fish, called also *Trutta fluvialis altera.*

HUCIPOCHOTL, *Huaxatensis, seu Ricinus Nova Hispaniae.* Hernandez.

It is described by Hernandez as a Shrub, creeping like Vines, and bearing a Fruit nearly resembling a Halle-nut, but inclosing three Kernels, after the manner of the *Ricinus*.

The distilled Liquor restores the decay'd Strength in such an effectual Manner, that they say it will raise the Patient, tho' almost at the Point of Death. The same is cooling and fattening, and the very Leaves of the Tree, eaten as Greens, work the same Effects, and cause a good Colour. The Tears, which distil from the broken young Shoots, are an admirable Remedy for an Inflammation of the Eyes. Five of the Kernels, or seven, if the Patient be robust, cleansed from a certain Membrane, which covers them, are an excellent Evacuant of Phlegm and Bile, both upwards and downwards, and in so safe a Manner, that the Working of it, if convenient, may be restrained by the slightest Thing taken for that Purpose.

HUMECTANTIA. Moistening Remedies. And

HUMECTATIO. Humectation. These are already explained under the Article *PURA*.

HUMERUS, in Anatomy, is the large Bone of the Arm, articulated at one End to the *Scapula*, and at the other to the *Ulna* and *Radius*. See *BRACHIUM*.

The principal Bandages, adapted to Disorders of the *Humerus*, are specified under the Article *FASCIA*.

HUMIDUM sometimes implies the same as *Humor*.

HUMILIS *Musculus*, is the same as *Depressor Oculi*, or *Depressor Oculi*. See *OCULUS*.

HUMMATU. See *NUA*.

HUMOR. A general Name for any Fluid. The Antients seem to have call'd the nutritious Juices the *Radical Humor*; and to have constituted, as a Cause of Diseases, a Disproportion betwixt the innate Heat, and *Radical Moisture*.

HYA

HUMORISTA, a Name of Ridicule, bestow'd by *Helmont* on the Physicians of the *Galenic Sect.* *Castellus.*

HUNC, *Hucci.* Jupiter, or Tin. *Rulandus.*

HURA. *The Sand-box-tree.*

The Characters are;

It hath a Funnel-shaped Flower, consisting of one Leaf, which is spread open at the Brim, and slightly cut into twelve Parts: At the Bottom of the Tube is placed the Pointal, which, afterwards, becomes a globular compressed Fruit, which has twelve Cells, in each of which is contained one roundish flat Seed.

We know but one Sort of this Plant; which is

Hura Americana, *Abutili Indici folio*, *H. Amst.* AMERICAN HURA, with a Leaf like the *Indian Abutilon*. This is sometimes called *Jamaica Walnuts*, and the *Sand-box-tree*; and, by others, *Warnelia* and *Havelia*.

This Shrub is a Native of the *Spanish West-Indies*, from whence the Seeds have been brought into several Islands in the *West-Indies*, where the Inhabitants cultivate these Plants in their Gardens, by way of Curiosity. It arises to the Height of fourteen or sixteen Feet, and divides towards the Top into several Branches, which are adorned with large Leaves, indented on their Edges, and terminating in a Point. These Leaves, as also the younger Branches, are of a deep-green Colour, and are full of a milky Juice, which issues out on their being broken or bruised. The Fruit of this Plant, if suffer'd to remain on till they are fully ripe, burst in the Heat of the Day with a violent Explosion, making a Noise like the Firing off a Pistol; and hereby the Seeds are thrown to a considerable Distance. These Seeds, when green, vomit and purge, and are supposed to be somewhat akin to the *Nux Vomica*.

The Fruit of this Plant is, by the Inhabitants of the *West-Indies*, cut open on the Side where the Foot-stalk grew, and the Seeds carefully taken out; and the Shells are used as a Standish, to contain Sand for Writing; which gave Rise to the Name of *Sand-box-tree*. *Miller's Dictionary*, Vol. 2.

HUSSO. A large cetaceous Fish, the *Mario* of *Pliny*, and almost peculiar to the *Danube*, where it comes from the Sea, for the sake of fresh Water. It is sometimes found four-and-twenty Feet in Length, and four hundred Pounds in Weight. This Fish is wholly cartilaginous, and void of Bones, except in the Head, and has no Scales. It produces the *Ichthyocola*. *Schroder.*

HYACINTHUS.

The Characters are;

The Root is bulbous; the Leaves are long and narrow; the Stalk is erect, naked, and bears its Flowers on a Spike, which resembles that of the *Caryophyllus aromaticus*: The Flower is hermaphrodite, naked, monopetalous, tubulated, and divided into six Segments, which are reflected outwards; it is shaped like that of the *Caryophyllus aromaticus*, closely embraces the Ovary, and is furnish'd with six Stamina: The Fruit is roundish, and almost triangular: The Seeds roundish, or flat. *Boerhaave*, *Index alter*, Pars 2. p. 111.

Boerhaave mentions fifty-eight Species of this Plant; none of which have any medicinal Virtues attributed to them, except the first; which is thus distinguish'd.

Hyacinthus; oblongo flore, cœruleus; major. *C. B. P.* 43. *Tourn. Inst.* 344. *Boerb. Ind. A.* 2. 111. *Hyacinthus*. *Offic.* *Hyacinthus Anglicus*. *Ger.* 99. *Emac.* 111. *Raii Hist.* 2. 1159. *Synop.* 3. 373. *Hyacinthus Anglicus sive Belgicus*. *J. B.* 2. 585. *Hyacinthus Anglicus, Belgicus, vel Hispanicus*. *Park. Parad.* 122. **HAREBELLS**.

This Hyacinth has a round white bulbous Root, about as big as an Olive; from which spring several long, narrow, and thickish green Leaves; among which arises a long, smooth, brittle, round Stalk, eight or nine Inches high, bearing a Spike of six or seven long, round, sweet-smelling Flowers, of a deep-blue or purple Colour, somewhat hollow, and turning back their Brims; the whole Spike hanging down its Head. When the Flowers are pail, there come roundish Seed-vessels, containing black corner'd Seed. It grows every-where in Woods, Hedges, and Thickets; and flowers in *May*.

The Roots are the only Parts used, and that but very rarely; tho' some Authors affirm, that they are good to stop all kinds of Fluxes, and that they are diuretic. *Miller's Bot. Off.*

Galen recommends it for the Jaundice.

HYACINTHUS is also a Name given to several Sorts of **MUSCARI**; which see.

HYACINTHUS STELLATUS.

The Characters are;

The Flower is hexapetalous, expanded after the manner of the *Ornithogalus*, with narrow Stamina; the Fruit is roundish, like that of the *Ornithogalus*; the Root is bulbous; and the Plant has the Leaf and Appearance of the *Hyacinthus*. *Boerhaave*, *Index alter*, Pars 2. p. 116.

Boerhaave mentions eleven Species of this Plant; none of which have any medicinal Virtue attributed to them, except that the Bulbs of all the Species are reckon'd poisonous, and produce excessive Vomiting.

HYACINTHUS TUBEROSUS.

The Characters are;

HYÆ

The Root is tuberous; the Stalk erect, and surrounded, at Intervals, with foliaceous Vaginæ, or Sheaths; the Flowers are more like those of the Lily, and much larger than those of the bulbous Hyacinth.

Boerhaave mentions two Species of this Plant; which are,

1. *Hyacinthus*; Indicus; tuberosus; flore Hyacinthi Orientalis. *C. B. P.* 47.

2. *Hyacinthus*; Indicus; tuberosus; flore pleno. *Boerb. Ind. alt. Vol.* 2. p. 111.

Neither of these have any medicinal Virtues attributed to them at present, that I know of.

HYACINTHUS is also the Name of a Stone; which is thus distinguish'd by Authors.

Hyacinthus. *Offic.* *Charlt. Foss.* 38. *Kentm.* 30. *Mont. Exor.* 14. *Schrod.* 328. *Aldrov. Mus. Metall.* 962. *Schw.* 381. *Worm.* 104. *De Lact.* 27. *Boet.* 159. *Geoff. Prælect.* 79. **THE JACINTH**.

The Hyacinth is so called from its Resemblance to the Plant of that Name, in its yellowish-red Colour, of which there being several Degrees, the different Kinds of it are taken from thence: Some are of the Colour of red Lead, or bilious Blood; some of Saffron; some of yellow Amber, which are the least esteem'd. Hyacinths are distinguish'd into Oriental, which are brought from the *East-Indies*; and Occidental, which come from *Silesia*, *Bohemia*, *Auvergne* in *France*, and other Places: These Hyacinths seem to be different from that mention'd by the Antients, especially by *Pliny*, which was of a shining Violet-colour, like the *Amethyst*, tho' not so strong. Many superstitious Virtues have been ascribed to this Stone: They said it was of a cold Nature; that it strengthens the Heart, is gently astringent, and procures Sleep. *Schroder* reckons it a great Specific against Spasms and Contractions: It is an Ingredient in the *Electuarium de Gemmis*, together with the other precious Fragments, as they are called; and it gives its Name to the famous *Confectio de Hyacintho*. *Geoffrey*.

This Gem is sometimes imitated with Glass of Lead; but the true Stone is easily distinguish'd from the adulterated, by the Weight and Hardness.

CONFECTIO DE HYACINTHO.

Take of the Fragments of Hyacinth, red Coral, Bole Armoniac, and seal'd Earth, of each half an Ounce; Grains of Kermes, Tormentil-root, and Dittany, Seeds of Citrons, Sorrel, Purslain, Saffron, Myrrh, red Roses, all the Kinds of Saunders, the Bone of a Stag's Heart, Shavings of Hartshorn and Ivory, of each four Scruples; Sapphire, Emerald, Topaz, Pearls, Leaves of Gold and Silver, of each two Scruples; Camphire, Musk, and Ambergrise, of each five Grains; Syrup of Lemons, as much as is sufficient to make it according to Art.

HYÆNA, *ſauva*, an Hyæna. It is not certain what was the Animal meant by the Antients, under this Name; some taking it for a Quadruped, and so make it a kind of Wolf, or Cat, or Civer-cat; and others will have it to be a Fish. Whatever it was, the ancient Writers ascribed great Virtues to it: Thus *Pliny*, *Lib.* 28. *Cap.* 8. says, that the Flesh of the *Hyæna* eaten, but, especially, the Liver, is of great Efficacy against the Bite of a mad Dog; that the Fat rubbed on the Wound, and the Skin spread under the Patient, are an effectual Relief in such an Exigence. *Scribonius Largus*, N^o 171, 172. relates, that, being inform'd, that there was an old Barbarian in the Island of *Crete*, who had been cast there by Shipwreck, and receiv'd a Salary from the Government; and that he cured all who were bitten by mad Dogs, tho' affected with an Hydrophobia, and tho' they barked, and were seized with Spasms, only by tying something to their Left Arm; he had the Curiosity to inquire concerning the Matter, of *Zopyrus*, a Physician of *Gordium*, who was sent on a Deputation from the States of that Island, and was entertain'd at his House. He frankly told me, says *Scribonius*, as the best Return he could make for the Civilities he had received, that this wonderful Secret was nothing but a Piece of an Hyæna's Skin, tied up in a Cloth. I never yet had the Opportunity to try it, he says, and with I never may; tho' I took care to provide myself, immediately, with an Hyæna's Skin, against such an Exigence. Agreeably to this Relation of *Scribonius*, we are advis'd by *Ætius*, *Tetrab.* 1. *Serm.* 2. *Cap.* 162. to keep an Hyæna's Skin by us, that, whenever a Person happens to be bit by a mad Dog, we may tie it about him; because, says he, it has a Property of preventing an Hydrophobia, and even relieves those who are affected with that deplorable Symptom.

Of all Animals, says *Pliny*, the Hyæna was most celebrated and admired among the Magicians, as being itself endu'd with a Power of exercising magic Arts, as they pretended, and alluring insatuated Persons within its Reach. The Skin of the Head, bound on the Part, cures the Head-ach: The Gall, rub'd on the Forehead, cures Lippitude; and the Decoction thereof, with three Cyathi of *Attic Honey*, and an Ounce of Saffron, prevents the least Disorder of that Nature, and removes all

Dimness

Dimness and Cataracts, Albugo, Asperities, Excreſcences, and Cicatrices of the Eyes. The Sanies of the recent Liver, which distils upon broiling, cures the Glaucoma, being rubbed on the Place with clarified Honey: The Teeth cure the Tooth-ach, with a Touch, or being orderly fasten'd to the Parts: The Shoulders ease Pains of the Arms and Shoulders: The Teeth, taken from the Left Side of the Mouth, and bound to the Face, in the Skin of a Sheep or Goat, cure the racking Pains of the Stomach: The Lungs, eaten, cure the Colic: The Ashes, with Oil, are a Remedy for stomachic Disorders; being anointed on the Part: The Marrow of the Back, with old Oil and Gall, cures Distempers of the Nerves: The Liver cures Quartan Agues, being eaten thrice before the Fit: The Ashes of the Spine, with the Tongue and Right Foot of a Sea-calf, and Bull's Gall, all boiled together, and spread on the Skin of the Hyæna, remove the Gout; the Gall, with the *Asian* Stone, has the same Effect: They who are affected with Trembling, Spasms, Twitchings, and Palpitation of the Heart, are to eat a Piece of the Heart; so as that the rest of it be burnt to Ashes, and made into a Litus, with the Brain of the Animal: The same is a good *Psilothrum*, used alone, or with the Gall; the Hairs being first pulled out, from where you design none shall grow; and it serves to exterminate superfluous Hairs in the Eyelids: The Flesh of the Loins eaten, and anointed upon the Part with Oil, eases Pains of the Loins: The Eye, eaten with Liquorice and Dill, helps Barrenness, and promises Conception in three Days: One of the great Teeth, tied up in Linen, is said to be a Remedy against nocturnal Fears, and Terrors of Ghosts and Apparitions; and Maniacs are order'd to be suffumigated with the same, and to have it tied to the Breast, together with the Fat of the Kidneys, or with the Liver, or the Skin: The first of the Vertebrae of the Spine, called *Atlantia*, is accounted a Remedy for the Epilepsy: The Fat kindled is said to drive away Serpents; and Part of the Jaw bruised with Anise, and eaten in Food, is said to remove a Horror; the same used in Suffumigation, they say, provokes the Menſes. Thus far *Pliny*; who speaks of many more surprising Effects ascrib'd to this Animal; but, as they principally depend on some superstitious Observances in the Preparation or Application, we chuse to omit them.

It is most certain, that the Hyæna is not the Zibetia, or Civet-cat; but is more likely, from the Sound of the Name, to be what they call *Ginetta*, *Genetta*, which is an Animal common enough in *Spain*, and agrees with the Hyæna in its Spots, and many other things, and is a Species of Wolf. The Antients wrote *Hyæna*, whence, by a way of forming Diminutives usual in modern Languages, came the Words *Hyænetta* and *Jænetta*, like *Hyacinthus* and *Jacinthus*; thus are form'd *Capſetta* and *Tabuletta*, and Multitudes of others. So that the Hyæna may be the *Genetta* by its Spots, and some other things; but whether they agree in all, let others inquire; for I determine nothing. *Salmaſius*, *Plin. Exercit.*

Bellonius is mistaken in asserting the Hyæna of the Antients to be the Zibetia; for they are nothing alike. The Hyæna is a Species of Wolf, the Zibetia rather of the Cat-kind. The *Arabians* so call this latter, which *Nicetas* call *ζαπίτης* (*Zapetes*); and the Ointment prepar'd of it, *ζαπίτιον* (*Zapetion*). Some say, the *Arabians* call the Hyæna *Adib*; but it is certainly of the Wolf-kind. Others tell you, that the *Arabic* Word for the Hyæna is *Dahab*; and *Bellunensis* writes, that the *Dahab*, or *Dabba*, is an Animal between a Dog and a Wolf, which devours Carcases, and is very common in *Syria*; this must be understood of the Hyæna. The same Author writes, that the *Adenian*, that is, the *Babus*, is an Animal like a Dog, which barks by Night, and feeds upon Carcases, and is frequently found in *Syria*, between *Damascus* and *Berytus*; and this too seems to be spoken of the Hyæna; for *Pliny* relates of the Hyæna, that it is the only Animal which digs up the Graves in Search of Carcases. Some say, that the *Arabians* call a Wolf by this Name. It is hardly credible, that the Hyæna, being so noted a Beast among the Antients, should not, among other Properties, have been distinguished by them, for its extraordinary Scent, if it were the Zibetia; and there is nothing weaker than to argue from the Silence of the Antients concerning the Zibetia, that therefore the Hyæna is the Zibetia; for neither have they said any thing about the *Musſus*, or Animal from whence Musk is taken: Does it therefore follow, that the *Musſus* is the Hyæna? *Salmaſius*, *Plin. Exercit.*

HYALODES, *υαλωδες*, from *υαλον*, Glass, vitreous or glassy, in *Coac. T.* 150. is an Epithet applied to *υεση*, Urine, which deposits much vitreous, cold, white, viscid Phlegm, and indicates a favourable Crisis in Diseases proceeding from crude Humours of this Kind, being reckon'd among the Causes, as well as Signs, of a Solution. The same Author seems afterwards to apply the Word *γυναικιδης*, (*Gonoides*) to the same sort of Urine, and to use it as *Hippocrates* does in several Places, to signify much vitreous and gross Phlegm of the Colour and Consistence of the *Semen genitale*. And *Galen*, *Com. 2. in 6 Epid.* explains *γυναικιδης*, to be Urine depositing much vitreous Humour.

HYALOIDES, *υαλοειδης*, from *υαλον*, Glass, and *ειδος*, a Resemblance, is an Epithet of the vitreous Humour of the Eye.

HYANCHE, *υαγχη*, from *υς*, a Swine. A Quinsy, accompanied with an external Tumor on each Side of the Throat, is called by this Name, according to *Caelius Aurelianus*, *L. 3. Acut. C. 1.*

HYARITH, *Λυα*, *Rulandus*. I suppose he means Silver.

HYBOMA, *υβωμα*. Gibbosity.

HYBOUCOHU *Americanus*, itemque *CARAMENO* *fructus ejusdem*. Theveti. J. B.

This is an *American* Fruit, of the Figure and Size of the Date, but is not eatable; they express from it an Oil, which they keep in a Vessel made of the Shell of a Fruit, called *Carameno*, in the *Indian* Language.

This Oil is principally used for a Distemper common in *America*, called *Tbm*, which seems to be the same as the *Chilgres*; a Collection of very small Worms, in the fleshy Parts, causing a Tumor about the Size of a Bean. This Oil is also used to fortify the Limbs when fatigued, and to heal Wounds and Ulcers. *Lemery des Drogues.*

HYDARTHROS. A sort of clear Ichor, which flows from the Joints when wounded, or ulcerated. The Farriers call it Joint-water. It is derived from *υδωρ*, Water, and *αρθρον*, a Joint. See *GANGRÆNA*.

HYDATINON, *υδατινον*. The Name of a *Collyrium*, made principally of Rain-water, mention'd by *Galen*, in his Commentary upon the sixth Book of *Hippocrates's* Epidemics.

HYDATIS, *υδατις*, is a little transparent Vesicle, or Bladder full of Water, which is sometimes found solitary, and sometimes in Clusters, upon the Liver, and various other Parts, especially in hydropical Constitutions.

But *Hydatis*, in a particular Sense, is a Disorder of the Eyelid, called also *Aguila*, of which *Paulus Aegineta* gives the following Account: The *Hydatis*, he says, is a preternatural pinguious Substance, seated under the Skin of the Eye-lid. In some Subjects, and especially in Children, as abounding with Moisture, it increases so as to become the Cause of many Symptoms, oppressing the Eye, and by that means inducing Rheums. In this Disorder the Eye-lids appear watry, under the very Eye-brows, and are incapable of a due Elevation; and, if compressed with the Fingers, separate; the Space between them is inflated; the Patient is infested with Defluxions, principally in the Morning, and is not able to behold the Splendor of the Sun without Tears, and is also subject to a continual Lippitude.

The Patient, in this Case, being placed in a right Posture, we compress the Eye-lid with two Fingers, the fore Finger, and the middle Finger, a little separated, that there may be some Collection of Water between them; we then order an Attendant, who stands behind, and supports the Head, gently to extend the Eye-lid, near the Middle of the Eye-brow; then, with a Lancet, we make a transverse Incision in the Middle, no larger than we use in opening a Vein, but deep enough to divide the whole Skin, and even to touch the *Hydatis*, proceeding with much Care and Caution; for many, by carrying the Instrument too deep, have divided the Cornea Tunica, or, at least, have wounded the Muscle of the Eye-lid. If the *Hydatis*, therefore, immediately offers itself to Sight, we are to extract it; if not, we are gently to divide farther. Having open'd the *Hydatis*, we take hold of it with our Fingers, in soft Linen; and after moving it this way, and that way, and sometimes turning it round, extract it. After Extraction we apply a doubled Linen Cloth, dipt in *Possa*, to the Wound, and bind it up. Some, with the Head of a Probe, introduce pounded Salt into the Section, in order to consume what may possibly be left of the *Hydatis*. When the Dressing is taken off, if no Inflammation appears, the Place is to be healed with some Collyrium, that is commonly used to anoint the Eye, or with *Licium*, or *Glaucium*, or Saffron. *P. Aegineta, Lib. 6. Cap. 14.*

St. Yves informs us, that there sometimes comes on the Edge of the Cartilages of the Eyelids, or on the Conjunctiva, an Elevation, like the Bladders which appear on the Skin after Burns. They are as big as a Pea, or a Lentil, are fill'd with a very clear Liquor, and have the Name of Hydatides, from the Lymph which they contain. Sometimes a Serosity is extravasated between the Conjunctiva, and the Membrane which covers it; it separates these Membranes, and, in the Movement of the Eye, a Sort of Wrinkle appears; which shews, that a Serosity stagnates between these Membranes, and produces this Swelling. This Disease is not at all dangerous; it is only a little troublesome, when it seizes only Part of the Conjunctiva, or the Edge of the Eyelid. The surest Remedy is to prick it dexterously with the Point of a Lancet, and to lay it open, according to the longitudinal Direction of the Tumor; the little Purse immediately discharges its Humour, and the Cure, without any other Remedy, succeeds.

When all the Circumference of the Globe is filled with Water, the Conjunctiva becomes red: In this Case, the Patient must be let Blood. When the Serosity seems to diminish, let him be purged, and apply to his Eye a Collyrium, composed with a Dram of the *Lapis Medicamentosus Crolii*, dissolved in half a Pint of common Water; or else you may make use of Wine, in which red Rosca, Sage, Thyme, and Wormwood, have been boiled. *Linne.*

Lime-water is likewise very good. By these means, this Collection of Serosity is soon dispersed. *St. Ives.*

HYDATISMUS, ὑδατισμός. The Noise, or Sound made by the Humours contain'd in external Abscesses or Vomicas, as it fluctuates.

HYDATOCHOLOS, ὑδατόχολος. An Epithet sometimes apply'd to Stools, which are very liquid, and bilious.

HYDATODES, ὑδατώδης, or **HYDATOIDES**; ὑδατοειδής, from ὕδωρ, Water. Watery. It is an Epithet for Wine very much diluted; for limpid Urine; for the aqueous Humour of the Eye; and for a Person labouring under an *Anasarca*.

HYDEROS, ὕδερος. A general Name for the Dropsy. But, by *Galen*, it is apply'd particularly to the *Anasarca*. ὕδερος πρὸς ἀμύδα is the same as *Hydrops ad Matulam*; that is, a *Diabetes*.

HYDNON, ὕδνον. *Dioscorides*, Lib. 2. Cap. 175. says it is a round Root, without either Leaves or Stalks, and yellow: It is, he says, dug up in the Spring, and good to eat either raw, or boiled. The Interpreters translate the Word by *Tuber*. It should seem to be the *Truffle*.

HYDRA. The Name of a certain venomous Serpent, mentioned by *Aldrovandus*.

HYDRAGOGOS, ὑδραγωγός, from ὕδωρ, Water, and ἄγω, to bring away. Hydragogue. Remedies which evacuate a large Quantity of Water in Dropsies are thus called. In *Hippocrates*, *Epidem. Lib. 7.* it imports a Person grown hydropical, from drinking too large a Quantity of Water.

HYDRARGYROSIS. Mercurial Uction, with a View of exciting a Salivation.

HYDRARGYRUM. Quick-silver. See **MERCURIUS**.

HYDRARTHROS. See **HYDARTHROS**.

HYDRELÆUM, ὑδρέλαιον. A Mixture of Oil and Water. It is, by *Galen*, esteem'd refrigerating.

HYDRENTEROCELE, or rather, **HYDRO-ENTEROCELE**, from ὕδωρ, Water, ἐντέρον, an Intestine, and κύλη, a Tumor. A Dropsy of the Scrotum, complicated with a Descent of the Intestine. See **HERNIA**.

HYDROA. See **HYDROA**, and **SUDAMINA**.

HYDROCARDIA. A Word coin'd by *Hildanus*, to express a serous, sanious, or purulent Tumor of the Pericardium.

HYDROCELE, ὑδροκύλη, from ὕδωρ, Water, and κύλη, a Tumor. A Dropsy of the Scrotum. See **HERNIA**.

HYDROCEPHALUS, from ὕδωρ, Water, and κεφαλή, the Head.

An Hydrocephalus is a preternatural Tumor of the Head, arising from a certain preternatural Lymph. It is term'd internal, when the Water is collected within the Bones of the Cranium; external, when retain'd between the Skin and Cranium. The first Kind is rarely seen, but in new-born Infants; and is contracted either in the Womb, or during a difficult Birth. Among others, the Reader may consult *Wedelius, de Morb. Infantum*, and *Ruyfch. in Thesaur. Anat. 2. Tab. III.* which last has given us a very ample Account of this Disease. These Infants are generally in great Danger, and that increases in proportion to the Disorder, which is often found incurable; for, upon an Incision, the Lymph is no sooner discharged, than the Infant dies, as Experience has too often convinced us. If the Distemper is recent, it will be more adviseable to try the Power of Medicines; such as repeated gentle Purges, to draw the peccant Humour downwards, while a large Compress, dipt in Lime-water, Spirit of Lavender, or Hungary-water, is applied outwardly. The proper Bandage we have already describ'd, under the Article **FASCIA**.

The principal Difference between the external and internal Hydrocephalus is, the former makes the outward Superficies of the Head soft; whilst, in the latter, the Head is as hard as usual: The Reason of this appears from the last Paragraph. Though the former is not without Danger, it is more easily cur'd than the latter; but, the Difficulty is increased by the Greatness and Duration of the Disorder. The Cure is to be attempted by internal and external Remedies, such as Cathartics, Diaphoretics, Diuretics, attenuating and corroborating Medicines, for internal Use; and externally, the Method recommended in an internal Hydrocephalus is the most adviseable; for these may be apply'd with folded Linen Cloths, or with digestive aromatic Bags, made with Marjoram, Origanum, Mother of Thyme, Penny-royal, Chamomile, Sage, Rosemary, and Lavender. These, impregnated with the above-mention'd Epithems, are to be applied warm to the Head, and then secure them by a proper Bandage. *Hildanus* says, he has cur'd an Hydrocephalus by the repeated Application of Lime-water alone, as a Lomentation, with a Sponge. Besides these Remedies, we may apply an Er-rhine, or cephalic Snuff, made of Marjoram, Lilies of the Valley, true Marum, Cubebs, the Horse-chestnut, and Tobacco.

Further, it is proper to chew Tobacco, which will discharge the Lymph from the Head. Lastly, some soment with the Fumes of burning Spirit of Wine, highly rectified; but, if all these Remedies are ineffectual, we must then proceed to chyrurgical Treatment; and, first, lay Blisters, prepar'd of Cantharides, behind the Ears, and on the Neck. And, if this fails, the next Method is to cup the Parts. *Pisô* affirms, that he cured

an Hydrocephalus by an Issue in the Neck; and, therefore, a Seton, which has the Effect of two Issues, may be serviceable. When all other Means have proved unsuccessful, some of the Antients have recommended a deep transverse Incision, for discharging the Water, at the Bottom of the Head; but, as this may wound or divide the Veins or Muscles, I cannot approve of it, but think it much better to promote the Discharge by several longitudinal Wounds, or Scarifications. After this, the Wounds must be dress'd with Lint, spread with a digestive Ointment; and, that they may be kept open, a little red Precipitate must be sometimes added. Having thus removed the Disorder, the Wounds should be heal'd with a vulnerary Balsam; and the Patient should be kept to proper internal Medicines, and a regular Diet. We find Examples of this Distemper in *Paré, Zacut. Lusitanus, Kerkringius*, and others: Particularly *Vesalius* says, he found nine Pounds of Serum in the Ventricles of the Brain of a Person afflicted with this Disease.

HYDROCOTYLE.

The Characters are;

The Root is very creeping, the Leaves umbilicated and rounded. The Flower is pentapetalous, rosaceous, and seated in the Ovary: The Ovary consists of two flat semiorbicular Seeds.

Boerhaave mentions two Species of this Plant; which are,

1. Hydrocotyle; vulgaris. T. 328.

2. Hydrocotyle; Zeylanica; Afari folio. T. 328. *Boerb. Ind. alt. Plant. Vol. 1. p. 70. 71.*

I know of no medicinal Virtues ascrib'd to this Plant; except only, that it is possess'd of an acrid Quality.

HYDROCRITHE, from ὕδωρ, Water, and κριθή, Barley. Barley-water. *Blancard*.

HYDRODES FEBRIS. A Fever, in which the Patient is affected with copious symptomatical Sweats, from the very Beginning of the Disorder.

HYDRO-ENTEROCELE. See **HYDRENTEROCELE**, and **HERNIA**.

HYDROGARON. Garum, diluted with Water. *Aetius, Tetrab. 1. Serm. 3. Cap. 84.* describes a purging Hydrogaron.

HYDROLÆUM. The same as **HYDRELÆUM**.

HYDROLAPATHUM. A Name for the *Lapathum*; aquaticum; folio cubitali. See **BRITANNICA**.

HYDROMELI, ὑδρομέλι. Hydromel, otherwise call'd *Mulsun*, *Aqua Mulsæ*, or *Meliceratum*. Water impregnated with Honey, either before or after Fermentation, is thus call'd. There are various Ways of preparing it, some of which are describ'd by *Columella*, Lib. 12. Cap. 12. We have, under the Article **ALCALI**, specified the medicinal Virtues of Hydromel, made without Fermentation, from *Hippocrates*. That made by Fermentation is call'd Vinous Hydromel, or Mead, and is esteem'd good for the Gravel. See **MEL**.

HYDROMELON, ὑδρομήλον. This is made of one Part of Honey impregnated with Quinces, and two Parts of boil'd Water, set in the Sun, during the Dog-days. *Dioscorides*, L. 5. Cap. 20.

HYDROMPHALON, from ὕδωρ, Water, and ὄμφαλος, the Navel. A Tumor of the Navel, containing Water. See **HERNIA**.

HYDRONOSOS, from ὕδωρ, Water, and νόσος, a Disease. A Name for the **SUDOR ANGLICUS**.

HYDROPEGE, from ὕδωρ, Water, and πηγή, a Fountain. Fountain-water.

HYDROPHOBIA, from ὕδωρ, Water, and φοβία, to fear. A Dread of Water. This is a Symptom of that Species of Madness caused by the Bite of a mad Animal, whence the Distemper itself is named *Hydrophobia*. But the Symptom is not peculiar to the Distemper above-mention'd, tho' it is always an Attendant; for we meet with several Instances of Fevers accompany'd with a Dread of Water; and this led *Cælius Aurelianus* into a Mistake, when he quotes *Hippocrates*, as mentioning this Species of Madness. The Place he alludes to, is in the first Book of the *Prorrhætics*, Text 16. and runs thus, εἰς ἐρευνήτοις βραχυπύται, φόρου καθ' ἀπλήρωτοι, τρομάδες. This is again repeated in the *Coacæ Prænotiones*, Text 96. Thus, Οἱ ἐρευνήτοις βραχυπύται, φόρου καθ' ἀπλήρωτοι, τρομάδες ἢ σπασμώδες. By βραχυπύται, he means only, as *Galen* explains it, those who in Fevers drink very seldom, and then but in small Quantities. And, by the whole Passage, he only seems to mean, that those phrenitic Patients, who drink but seldom, and little at a time, and who are affected with any small Noise, are subject to Tremors and Convulsions.

And I remember, that *Hippocrates*, somewhere in his *Epidemics*, uses the Word λυσισωματικὴν, which *Calvus* reads λυσισωματικὴν, and translates it accordingly, as if it came from λύω, the Madness caus'd by the Bite of a mad Animal; whereas it only imports a great Dissolution of the Body, from λύω, to dissolve.

But we meet with Histories of Cases, where this Symptom of an Hydrophobia was very remarkable. Thus we are told, that a Person walk'd to *Harlem*, from *Leyden*, in a very hot Day; and, being much fatigued, fell into a violent Fever, attended with

with this extraordinary Circumstance, that he could neither drink, nor swallow his Spittle.

In the *Edinburgh Medical Essays*, Vol. I. Dr. *Waugb*, of *Kirkcaldy*, gives a History of a Girl, that had strange convulsive Fits, upon endeavouring to drink or eat any thing. Towards the End of the Fit, she fell to the Ground as dead; but, in a Quarter of an Hour, began to speak, complaining of an intolerable Pain in her Breast, and a Weight upon her Spirits, or Anxiety which she could not express; and, with her Finger, pointed to the Part affected, which was under the upper Part of the Sternum, where it is joined with the Clavicles. About two Months before, she had a Quinsey, with a violent Fever; and, when it was expected every Minute that she would be suffocated, the Swelling about her Throat suddenly disappearing, she was relieved in a great measure; but was sensible of a painful Weight remaining in her Breast, at the Place she pointed at; and, from that time, Deglutition had met with some Obstacle, which had daily grown worse. About three Days after the Doctor had seen her, a Tumor broke, which almost suffocated the Girl with the Stench and Quantity of Matter, and she recovered.

In the same Volume, Dr. *John Innes*, of *Edinburgh*, gives a remarkable Case of an *Hydrophobia*, which I don't find proceeded from the Bite of a Mad Dog. This was in a young Gentleman, who was seiz'd with a violent Pain at the upper Orifice of the Stomach; his Pulse was much oppress'd, and very irregular, and often intermitting, and his Extremities chill'd. He was almost suffocated, fetching heavy Sighs, and, very often, looking ghastly, spouting out Saliva frequently. In his Intervals he would call for Drink; but, the Moment he saw it, fell into the most surprising Horrors, and, as it approach'd him, started, look'd frighted, had Convulsions, especially about the Mouth, and peevishly put it away with his Hand; and then, with an Air that spoke at once both Fright and Repentment, he would stare after the Drink, and, soon after, impatiently call for it; and repeated the same Scene frequently. He was cured by repeated Bleeding.

Great Disputes have arose concerning the Antiquity of the *Hydrophobia*; and *Plutarch* is quoted by some, particularly *Le Clerc*, as alleging that it first appeared in the Days of *Asclepiades*: But this is a Mistake, for *Plutarch* only relates a Dispute between *Philo* the Physician, and *Diogenianus*, whether Nature could produce new Distempers, or not. *Plutarch* quotes *Ashenodorus*, who says, that the *Elephantiasis* and *Hydrophobia* both first appeared in the Time of *Asclepiades*. *Diogenianus* answers as to this Particular, that the *Hydrophobia* was known to *Homer*. *Plutarch* never denies this, but endeavours to prove, that new Diseases may be produced.

Cælius Aurelianus, in order to prove the Antiquity of this Distemper, quotes a Passage out of the Eighth *Iliad* of *Homer*, where *Teucer* calls *Hector* *καὶ λυσσῆτιρα*; tho' he does not seem to depend much upon it. He has, however, omitted some other Passages in the same Author, which are, in my Opinion, more for his Purpose, and come fully up to the Point. Thus, in the Ninth *Iliad*, the artful *Ulysses* is introduced addressing *Achilles*, a Hero, who had made Physic a Part of his Studies, in these Words:

—“Εκτωρ δὲ μέγα δῖνός τε βλεμμάων
μαίνεται ἐκπάγλως πῖσυνθ' Διὶ, ὃ δὲ τι τίς
Ἀνέρος ὃ δὲ Θεῶν κέρτερι δὲ ἐ λύσσα δῖδ' ὕκεν.

In the thirteenth *Iliad*, *Hector* is again called *λυσσώδης* by *Neptune*.

It must be observed, that *λύσσα*, *λυσσῆτις*, and *λυσσώδης*, properly imply this particular Species of Madness. The Word *λύσσα* or *λύτσα* is used to signify the Madness of Dogs by *Aristotle*, *Galen*, and *Dioscorides*. And *λυσσώδης* is used by the last-mentioned Author to signify a Man bit by a mad Dog. *Λυσσώδης* is used by *Aretæus* in this Sense, and *λυττώσις* by *Plutarch*, to signify the same thing.

The *Hydrophobia*, or Madness caus'd by the Bite of a mad Animal, is always, in Man, excited by the Bite of some Animal previously mad: Thus, Dogs, Cats, Wolves, Foxes, Horses, Asses, Mules, Cows, Swine, Monkeys, Men, and even Cocks, affected with this Distemper, have been known to propagate it by their Bites to Men, and other Animals. But Dogs, Wolves, and Foxes, are most frequently affected, and that without any previous Bite from another Animal: In these the Distemper should seem to be only a Symptom, accompanying all the Fevers they are subject to. And this is confirm'd by the Observation, that we may make almost any Dog run mad, by keeping him some time without Water, and, by that means, giving him a Fever, especially if, at the same time, his Aliment is rancid, salt, putrid, and fetid. And this sort of Food, together with want of Water, a very hot Climate, or one subjected alternately to excessive Heats, and immoderate Cold, an extremely hot and dry Season long continued, and Worms generated in the Kidneys, Brain, Intestines, and Cavities of the Nose, are, by *Boerhaave*, justly esteem'd the preceding Causes of Madness in these Animals.

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With respect to the Propagation of this Distemper from Brutes to Man, the Disease seems to be, as it were, inoculated by the Bite into the Animal, which receives it; for it is remarkable, that the Wound, whereby the Poison is received, grows sore, and festers some little before, or about, the Time the Distemper begins to appear. Something very like this happens in the Inoculation of the Small-pox; for the Incisions, where the variolous Matter had been introduced, begin to grow sore and painful about the fourth or fifth Day, that is, about the Time that the Distemper begins to shew itself. It is further remarkable, that, when the Inoculation does not take Effect, the Incisions heal up in a few Days, like a common Cut; and I have some Reasons to believe we may form a Judgment, with some Degree of Certainty, of the Danger a Patient is in from the Bite, by observing the Wound; for, while that remains with a Scab upon it, I look upon him to be in great Danger; but, when once it is cicatrized, I am in no great Pain for the Consequences. However, I would not pretend to establish this as a certain Maxim, but should rather recommend it as worthy Observation, to Physicians, who shall hereafter be concerned in such Cases.

The Signs of an approaching Madness in Dogs are, according to *Boerhaave*, these: They become dull, solitary, and endeavour to get out of Sight, and hide themselves; they are mute, as to their Bark; but make a kind of murmuring Noise, refusing, at the same time, all kinds of Meat and Drink; they are enraged, and fly upon Strangers, but, in this Stage, remember and respect their Masters; their Ears and Head hang down, and they walk nodding, as if overpower'd by Sleep. This is the first Stage of the Distemper, and a Bite received then is very dangerous, but not of the worst Kind. Then they begin to pant, and hang out their Tongue, to emit a great deal of Froth from their Mouths, which they keep perpetually open; sometimes they walk slowly, and as if half asleep; and then suddenly run, but not always directly forward, as is pretended; at last they begin to forget their Masters; mean time their Eyes look dispirited and dull, full of Tears, and red; their Tongue is of a lead Colour; they are suddenly extenuated, and now rage excessively. They seldom survive this second Stage thirty Hours; and a Bite received at this time, (*Boerhaave* says) is incurable; but the more raging the Animal is, the longer he has been affected, and the nearer he is to Death, the more dangerous is the Bite, the more violent are the subsequent Symptoms, and the sooner they come on; and *vice versa*.

Boerhaave has omitted two Circumstances, which are very material, as being the most certain Signs of approaching Madness: One is, that all other Dogs, upon smelling the Dog going mad, will avoid him, and run away with Horror, shaking their Heads with some Vehemence. *Lommius* says, other Dogs are even terrified at the Sight of mad Dogs, or at hearing them bark.

The other Circumstance is, that the Tone of the Dog's Voice, when he barks, will be quite alter'd from what it was, and seem hollow and hoarse; and this is one of the first perceivable Alterations. And tho', as our Author observes, the Dog may possibly be mute, in that Sort commonly called the dumb Madness; yet it is more frequently found, that a Dog, especially if confined, shall bark for a Day or two, without ceasing.

The Symptoms of this Species of Madness in Cattle, according to *Vegetius*, are a great Distention of all the Veins, Inflammation of the Eyes, Sweats, Tremors, Grinding of the Teeth, Bearing themselves against the Wall, and soon after direct Madness.

The Poison communicated by the Bite of a mad Animal is of a very extraordinary Nature: For a slight Scratch, and that thro' the Clothes, and even without drawing Blood; the Application of the Foam discharg'd by a mad Animal, whilst recent, or even after it has been long dry'd, to the Lips or Tongue; a Kiss given to a mad Animal; a Wound made with an Instrument, with which a mad Animal had been killed many Years before; eating the Milk or Flesh of a mad Animal; or much touching and handling any thing infected with this Poison, may all excite the Distemper in another sound Animal. Thus *Cælius Aurelianus* informs us, that a certain Person had contracted this Distemper by a Wound received from an infected Dunghil Cock. The same Author relates, that a Woman, in mending a Garment, which had been torn by a mad Dog, licked the Seam with her Tongue, in order to make the Needle pass thro' the more readily, and became mad within three Days. *Dioscorides* tells us, that *Themison* the Physician contracted this Disease, by a too diligent Attention on a Friend, who was ill of it; and *Aretæus* says directly, that the Breath of a mad Dog will make a Man run mad without any Bite: Some other Moderns also, quoted by *Stalpart Vander Weil*, give Instances to the same Purpose; as *Palmarius*, who relates, that a Country Fellow, ill of this Distemper, begged earnestly to kiss his Children before he died; he accordingly did, but seven Days after they were all seiz'd with the same Illness, and died. *Cardan* gives an Account of a noble *Venetian*, who was infected by kissing a favourite Whelp, which, being mad, was ordered to be drowned. *Matthiolus* also tells us, he had seen two Persons mad, who were infected only by touching the Foam of a Dog, without

the least Bite. That a small Scratch of a Tooth is capable of producing this Mischief, is proved every Year, by melancholy Instances in our own Country. But, farther, that the Scratch of a Cat's Claw, or the Peck of a Cock, has sometimes been fatal, we have the Testimonies of *Hildanus*, *Bartholine*, and *Bacchius*, concurring with the Authority of *Cælius Aurelianus*. *Bacchius* gives an Instance of Madness in a Gardener, consequent upon a small Wound received from a Cock. *Hildanus* relates, that one *Daniel Perrin*, a young Man, was seized with a kind of Melancholy, attended with strange Apprehensions and Imaginations, some Months after he had been scratch'd, in the Thumb, by a Cat; the third Day he himself was called to him, and found him labouring under an *Hydrophobia*. The same Author gives a remarkable Case of a Woman, who, having mended her Gown, which had been torn by a mad Dog, inadvertently bit off the remaining Thread; and, in about three Months, she was seiz'd with all the usual Symptoms of an *Hydrophobia*, and died raving.

There is no Poison known which produces such terrible Effects as that communicated by a mad Animal, nor which induces such a Change in a Man who receives it; which rages with such Violence, and so suddenly, when it one begins to act; and which may, notwithstanding, lie concealed for so long a time, before it manifests itself by its Effects; for though, in some, the Distemper breaks out very soon after the Poison is receiv'd, yet, in others, it has been known to lie dormant for more than twenty Years; and, after that, to excite an *Hydrophobia*, with all the Train of terrible Symptoms attending it. This Diversity should seem to depend upon the Heat of the Season, the Degree of the Distemper in the Animal which communicates the Poison, and the Constitution of the Patient who receives it; and the Diet, and Medicines, taken by way of Preservative. Bilious Constitutions are more likely to be soon affected, than such as are pituitose, and hydropical.

Cælius Aurelianus only observes, that some fall ill sooner after the Bite, others later; that some are a Year or more before they are sensible of its Effects, but most perceive it after forty Days. *Galen* is of much the same Opinion. *Dioscorides* relates, not upon his own Knowledge, but Report, that People have gone mad seven Years after the Infection was received. *Paulus* and *Aetnarius* agree with *Galen* and *Dioscorides*, as to the Time. *Stalpart Vander Wiel* quotes Cases from several Authors, where the Infection has broke out in an *Hydrophobia*, eighteen, thirty, even forty Years after the Bite. Of the three Cases *Hildanus* gives us, the two first continued perfectly well for three Months; but the Man who received a Scratch upon the Thumb, continued well about seven. In Dr. *Lifter's* Patient the Consequences of the Poison appeared in five Weeks; and in Dr. *Howman's* in six. See the *Philosophical Transactions*.

There are some Cases upon Record, which shew that the Disorders, caused by the Bite of a mad Animal, are sometimes periodical, and not always immediately fatal. Thus *Roscius*, in a Letter to *Hildanus*, which the last-mentioned Author has given us, after the 86th Observation, Cent. 1. relates the following Case:

In the Month of *August* 1581. a Lady received a Wound in her Left Arm, by a mad Dog, which she had the Misfortune to meet in the Street. A strong Ligature was made upon her Arm above the Bite, and Topics applied. The Place was also cauterized, and had Incisions made upon it. Alexipharmics were prescribed by her Physicians. After this, she continued well till the seventh Year, when she was seized with violent Pains in the Arm formerly wounded, which seem'd to her as if a Dog was gnawing it. This was succeeded by a Raving, and Delirium, a Melancholy, and Dejectedness, pertinacious Watchings, insatiable Thirst, a Fever, and great Weakness: She had also a great Aversion to Food, but had no *Hydrophobia*, for she drank freely. With proper Care, in a few Days, she recover'd, the Symptoms gradually disappearing. Seven Years after this she was again seiz'd with violent Disorders, which began in the same Arm. The Place particularly where the Bite formerly had been, was extremely painful, and somewhat convulsed. Besides this, she felt almost insufferable Gripings, and, at the same time, her old Watchings and Thirst returned. However, she, at least, seem'd to be cur'd a second time; but, in six Years after, all the same Symptoms return'd. This was twenty Years after receiving the Wound. The next Year she had another Fit of the same Illness; in the twenty-second, two; and in the twenty-third, three; and in the Year 1604, when this Letter was wrote, she had been tormented with two more. It is likewise remarkable, that she felt convulsive Motions and Pains in the wounded Arm, upon any Alterations in the Weather.

Dr. *Lifter* tells us of a Tradesman, in *London*, who had, for twenty-five Years, been troubled with Convulsions of his Head, which often obliged him to move it with great Velocity, sideways, from Shoulder to Shoulder; and in those Paroxysms, which seiz'd him in the Night, he would make a strange Noise, resembling the Barking of a Dog. Upon Examination, the Doctor thought there was great Reason to believe, this odd Disorder was originally caused by the Bite of a Dog, which he had received many Years before. And in this he was much confirmed, by some Accounts

given him by the Man's Wife, which, he says, are not to be mentioned.

In the *Philosophical Transactions* we are told, that in *Ireland*, about the last of *October* 1679. two Boys, about nine or ten Years old, handled and washed the Head of a Dog, which had been bitten by a mad one. The Dog never was disorder'd, but, about *May* 1680. the Children were seized with a grinding Pain, towards the Bottoms of their Bellies, which ascended gradually towards their Navels. About *July* 1. they were seized with a slow Flux, and fainting Fits, when the Pain assaulted them. Some time after, this Pain got above the Stomach, upon which they had very violent convulsive Motions, particularly about the Stomach and Belly, with foaming at the Mouth, in the Intervals of their Fits. These Symptoms continued and increased till the latter End of *August*, that they were taken with a *Fear of Water*, insomuch that, upon the Sight of any thing liquid, they would fall down as dead, and continue some little time as in a Swoon; then they would tumble and toss with violent Motion, and Distortions of their Bodies, accompanied with heavy Groans; and ordinarily, the eldest especially, snarl'd, and bark'd, and endeavoured to bite like a Dog. In about an Hour they would recover, and creep away, as if afraid of any body that was near them. They came entirely to themselves when the Fits went off, which returned daily, till about the Middle of *September*; and then their Disorder was more violent, and they more wild than ever, insomuch that in the Intervals they could not endure any Company, not even that of each other. This continued about a Week, and then the eldest cry'd out to his Father, as one surpris'd, that he was well; which accordingly both he and his Brother were, and continued so for three or four Days; then they fell ill again, and recovered in seven Days, without any farther Relapse. It is remarkable, that they both went into, and came out of, their Fits, at the same time. 'Tis, also, worthy of Observation, that, in *August*, they took Doses of *Mercurius Vita*, and Antimony, with *Venice Treacle*, and the testaceous Powders.

I have been told, also, by a Gentleman of Veracity, of a Case where the Distemper appear'd periodically, in a Boy, who was Whipper-in to a Pack of Fox-hounds, in the North of *England*.

The Symptoms of this Species of Madness are thus describ'd by *Cælius Aurelianus*.

Those who are just about to fall into an *Hydrophobia*, are seiz'd with a certain Anxiety, without any evident Reason, are prone to Anger, have their Bodies render'd uneasy, and subjected to preternatural and unusual Motions. Their Sleep is either restless and disturb'd, or they are affected with perpetual Watchings. Their Aliments become corrupted, their Stomachs oppressed, and they are inclined to stretch out their Legs and Arms. They are afflicted with a continual Oscitation, and a violent Nausea, or Inclination to vomit. They make unaccountable Complaints with respect to the Weather, as thick and rainy, when, at the same time, the State of the Air is pure, serene, and clear. They are rendered uneasy, fretful, and discontented, by Showers and Falls of Rain, and have an unusual small Appetite for Drink.

When the Disorder comes on, they are afflicted with a violent and insatiable Thirst, but, at the same time, are struck with an unaccountable Terror and Dread, not only at the Sight, but also at the Sound or Name, of Water. Then they become afraid of Fomentations of Oil used for their Relief, and their Pulse is thick, small, and irregular. Some are seiz'd with a slight Fever, convulsive Throws of the Stomach, a Torpor and Numbness of the Joints, a preternatural Elevation of the Præcordia to the superior Parts, and a costive State of the Belly: Then they discharge their Urine frequently, and by little at a time, and are seized with a Trembling, and Convulsions. Their Voice becomes hollow, and resembling the Barking of a Dog. The Posture of their Bodies is like that of a Dog, when lying asleep on the Ground. Their Respiration is difficult, and their whole Body is rendered highly restless, and uneasy, upon the Entrance of any Person into the Room, for fear he should bring Water with him. Their Eyes and Countenance become red, their Bodies slender, and the superior Parts of it pale, and covered with Sweat. The Tongue hangs out of the Mouth, and, in Men, the Penis is seiz'd with a frequent Tension, accompanied with an involuntary Emission of the seminal Fluid.

The last Stage of the Disorder is accompanied with an Hiccup, and a Vomiting of Bile, which is generally of a blackish Colour. Some are struck with an unaccountable Dread, and, upon stretching out their Hands to any Vessel with Liquor in it, they forthwith retract them with Horror. Some, upon the Sight of Water, frankly acknowledge, that it is a natural Liquor, and that to which they have been accusom'd; but, when they see it put in Motion, recede from it with the utmost Aversion. Thus *Soranus* informs us, that he knew a Person labouring under this Disorder, who made such a Confession; but tells us, at the same time, that he could not prevail upon him to take the Water. *Artorius*, also, gives us an Instance of a certain Soldier, who, labouring under this Disorder, upbraided himself

himself with his inexpressible Dread of Water, the darling Liquor to which he had been so much accusom'd; since, in the hottest Battles, he had never felt the smallest Emotions of Cowardice in his own Mind. *Eudemus*, a Follower of *Themison*, makes mention of a certain Physician labouring under an Hydrophobia, who, conscious of the Danger, earnestly intreated those, who entered the Room, to keep at a Distance from him; and, at last, a Torrent of Tears bursting from his Eyes, the Drops had such a surprising Influence upon him, that he started up, and tore his Garment. *Soranus* informs us, that he saw an Infant, afflicted with this Disorder, struck with Terror at its Mother's Breasts. The same Author, also, says, that a certain *Athenian* told him, that he had seen a Man labouring under an Hydrophobia, who, being banished from the House in which he lay, came to a Place, where he died, with his Body folded up like that of a sleeping Dog; and that, before his Death, he was so furiously mad, that he hastily ran to a Dog, who lay there, and bit him.

Boerhaave thus describes the Symptoms of an Hydrophobia.

A Person, before in perfect Health, when affected with this Disorder, begins sometimes sooner, and sometimes later, to labour under the following Symptoms, almost in the same Order in which they are enumerated: First, the Part into which the Contagion was immediately receiv'd, is affected with Pain; then wandering Pains are perceiv'd in other Parts, especially those adjacent to that primarily affected; a Weariness, Heaviness, and Listlessness, are induced on all the muscular Parts of the Body. The Patient's Sleep is restless, disturb'd, and accompanied with Frights, Convulsions, and Twitchings of the Tendons: He is, also, afflicted with continual Uneasiness, Sighing, Sadness, and a Love of Solitude. The first Stage of the Disorder is, generally, both accompanied and ended with these Symptoms; and, during this State of the Patient, Blood taken from the Veins has all the apparent Signs of laudable Blood. Then all the already enumerated Symptoms are increas'd, together with an Addition of a violent Uneasiness about the Precordia, and a Difficulty of Breathing, accompanied with Sighs and Horror; then the Patient is seiz'd with Horripilation and Trembling, upon the Sight either of Water, Fluids of any kind, or any Object which is either pellucid, or capable of reflecting the Rays of Light, like a Mirror. The Appetite is entirely lost, whilst, at the same time, a Power of swallowing the most solid Substance remains. The Approach of any Liquor to the Body, especially to the Tongue and Lips, produces an incredible Uneasiness, Trembling, Convulsions, and a State next to direct Rage and Madness. A yellow bilious Kind of viscid Substance, or a porraceous Bile, is vomited up. The Patient becomes hot, feverish, subject to continual Watchings, and is afflicted with a Priapism, and a Train of incoherent, disorderly, and unusual Thoughts. The Disorder proceeds in this manner, and its second Stage generally ends here. Afterwards the above-enumerated Symptoms are increas'd, and the Tongue becomes rough, and hanging out; the Mouth gaping, and the Voice hoarse. The Patient is, also, rack'd with an insatiable Thirst, but unfortunately seiz'd with an unaccountable kind of Madness upon every Attempt to drink, or upon the Sight, or Contact of any Fluid. The Froth is collected in his Mouth, and he is necessarily prompted by his Disorder, to discharge it on others. He is possess'd of an ardent Desire of biting every Object which comes in his Way; nor can this Desire be check'd by the Influence of his Will. He froths at the Mouth, grins, and gnashes his Teeth; his Pulse and Respiration become defective; he is seiz'd with a cold Sweat, and a violent Degree of Madness; whilst, at the same time, his Senses remain entire, insomuch that he is himself fearful, lest he should do any Injury to others. A convulsive Death, accompanied with a violent Difficulty of Breathing, almost always puts an End to his Life, within four Days after the Approach of his Disease.

The Diagnostic of this Distemper is evident from the preceding History thereof. With respect to the Prognostic, the Degree of the Infection may be estimated from that of the Violence of Madness in the Animal from which it was receiv'd; from the Season and Climate; and from the Constitution of the Patient, in the manner above-mention'd. But, in general, *Boerhaave* affirms, that there is no certain Preservative against it, yet known; and that there is no Example, that can be depended upon, of any one having been recover'd, who was once so far gone as to dread Water. This Author adds, that it is much to be lamented, that, after the common Methods have been put in practice perpetually without Success, for so many Ages, others have not been tried, different from those which so long Experience has convinced us were ineffectual.

By the Dissection of Bodies, destroy'd by an Hydrophobia, we learn, that the Organs of Deglutition are in some Degree inflamed; that various Sorts of bilious Viscidities are collected in the Stomach; that the Gall-bladder is full of black Bile; that the Pericardium is dry; that the Lungs are incredibly distended by Blood coagulated therein; that the Heart is full of almost dry Blood; that the Arteries are full, but the Veins al-

most empty; that the Blood is extremely fluid, so as scarcely to congeal when expos'd to the Air; mean time all the Muscles, Viscera, Cerebrum, Cerebellum, and spinal Marrow, appear more dry than usual.

Thus upon dissecting the Body of a Patient, who died in consequence of the Bite of a mad Dog, there was no Moisture found in the Pericardium; the Sinuses of the Heart were found dry, and destitute of Blood; and a certain Portion of the Pericardium was almost burn'd, and reduced to Powder. *Capivaccius, Pract. Lib. 7. Cap. 12.*

Upon dissecting the Body of a young Man, who died of the Bite of a mad Dog, the Brain was found entire and untouch'd; but all the Viscera, destin'd for the Performance of the natural and vital Functions, were excessively dry: However, it was uncertain, whether this Phenomenon was produced by the Nature of the Poison, or the preceding Evacuations, to which the Patient had been subjected. *Boneti Specul. Anat.*

A certain young Man was suddenly seiz'd with an Hydrophobia, to such a Degree, that he could not swallow a single Drop of any Kind of Liquor, though he could, at the same time, swallow any solid Substance. Notwithstanding all the Measures us'd for his Relief, he was, on the third Day, seiz'd with Madness; and the Saliva, flowing copiously from his Mouth, was thrown on all the By-standers. Upon the fourth Day, sitting in a Seat, out of Bed, he was suddenly suffocated, after a Struggle or two. Upon laying open the Body, it appear'd extenuated and consum'd, as if he had died of a long-protracted Plectic; all the muscular Part of the Flesh, together with the Fat, was almost totally consum'd. The Omentum was, also, entirely consum'd, so that the Intestines appear'd naked, and distended with Flatulences. The Glands of the Mesentery, and the Pancreas, were extenuated. The convex Part of the Liver appear'd to be sound; but the concave Part was inflam'd, and adher'd so strongly to the Spleen, that it could hardly be separated without breaking. The Left Lobe of the Lungs adher'd so firmly to the Spleen, that an Incision was necessary in order to separate them. The Gall-bladder was full of a greenish Bile, and adher'd closely to the Ribs. The interior Coat of the Stomach was so corrupted, that it might be abraded by the Fingers. The superior Orifice of the Stomach was very small, and the whole Oesophagus was narrow and constricted. The Lungs were dry; and, on both Sides, adher'd to the Ribs. There was not a single Drop of Water found in the Pericardium. The Heart was flaccid and extenuated; but its Right Ventricle was full of grumous Blood, whereas in the Left Ventricle the Blood was sufficiently fluid. The Kidneys were pretty large, and free from every apparent Defect. Upon interrogating the Patient, when he was in his Senses, whether he had been bit by a mad Dog, he said he remember'd no such Circumstance. But a Scar on his Left Leg made it pretty probable, that he had met with a Misfortune of this Kind. But there are Instances of Hydrophobias produced without the Bites of mad Animals. See *Pliny, Lib. 8. Cap. 40. Marcellus Donatus, Hist. Medic. Mirab. Lib. 6. Cap. 1. Salmuth, Cent. 2. Obs. 52. Zacut. Lusitan. de Medic. princ. Hist. 20. Borell. Cent. 3. Obs. 38. Joh. Henric. Brechtfeld, in Actis Danicis Bartholinianis, anno 1682.*

Mr. *Tauvry* having, for some Days, attended a young Man, who had the Misfortune to be bit by a mad Dog, and whose Death he had predict'd as infallible, laid open his Body, though in great Haste, thinking, by the Dissection, to discover something remarkable, which might account for the Dread of Water.

The internal Part of the Oesophagus was inflam'd, as, also, the Arteria Trachea, tho' not in so high a Degree: In the Bottom of the Stomach there were about three Spoonfuls of a glaucous viscid Substance, of a pretty-dark brownish Colour, and resembling that which the Patient often vomited, when alive: The Gall-bladder was full of a Bile which was almost entirely black: The Pericardium contain'd a very small Quantity of Water: The Arteries were full of a very fluid Blood; but the Veins contain'd very little: No coagulated Blood was any-where to be found. The Patient's Blood, after his Death, did not coagulate, when expos'd to the cold Air; whereas the Blood, taken from him by Venesection some Days before, easily coagulated: The Brain, and almost all its Parts, were a great deal drier than usual, as well as the Beginning of the Spinal Marrow, and all the Muscles. *Hist. de l'Acad. Royale des Sciences, Ann. 1699.*

A Farmer of *Montbelsstein*, in the Canton of *Basil*, upwards of thirty-six Years of Age, very early in the Morning of the fourteenth Day of *January* 1687. heard his Dog bark and howl violently, in a Neighbour's Stable. Upon this he rises, and goes to see the Reason of this unusual Noise: When he came near the Place, he observed a strange mad Dog making towards him, over the snowy Meadows; which Sight terrified him so much, being unarm'd, and in his Shirt, that he called a Servant to his Assistance: But, before he came, the Creature, which he had taken for a Wolf, attacked him furiously: They engaged for a considerable Time, till, at last, both lay prostrate on the Ground: Before this, the poor Man had receiv'd several Wounds in his

Left;

Left-hand and Arm: At length, up comes the Servant, and frees him from his Adversary; he returns to Bed, and anoints his Wounds with some Oil of Lizards, which he happen'd to have by him; and bound it on with Linen, dipt in warm Wine. At Day-break he sent for an experienced Physician; who came with a Surgeon, and prescribed, internally, Alexipharmics and Theriacals, Scarifications and Cupping, to extract the deleterious Saliva of the Animal; and, indeed, omitted no one Remedy usual in these Cases. Every thing seem'd to have the desired Effect; there were no bad Symptoms, no Appearance of Poison, either in the Blood, Spirits, or Wounds; he was neither thirsty, nor did he lose his Appetite; the Inflammation of his Hand and Arm was dispersed by vulnerary Fomentations; and the Wounds, discharging a well-digested Matter, were healed in seven Weeks.

The Farmer, finding himself in perfect Health, follows his Employ, without any Inconvenience; but, as he had been long prohibited the Use of Wine, to make up for his lost Time, he would often intoxicate himself. The fourteenth of *March* following, he came for my Advice; and told me, that, as he lay in his Bed the Night before, he felt a shooting, pricking, and heavy Pain, in those Parts where he had been formerly wounded; but that it grew easier upon his getting out of Bed. I examined his Hand and Arm, saw the Wounds well consolidated; nor were the Pains more acute there, than in other Parts of the Arm; but, beginning at the Extremity of the Hand, continued to the Axilla, without any Tumor, or Alteration in the Colour of the Skin: I then view'd the rest of his Body, and found it fleshy, and in a good State: His Appetite was good, he was not thirsty, and complain'd only of a sort of Lassitude. Upon weighing these Things, I suspected his present Complaints to arise from the former Accident, and immediately order'd a Scarification and Cupping, upon the affected Arm and Back, together with the usual Antidotes.

He follow'd my Prescriptions for a Day and a Night; but, as his Distemper increased the next Day, and he was told his Disorder must necessarily arise from the Bite of the mad Dog, and would certainly be the Death of him, unless he applied to an Executioner, who was famous for curing this Disease, he directly hurries to him, tells his Case, gets an Ointment, and, perhaps, took somewhat internally; however, he would not own it. In the Evening, after having drank a free Glass, he returns home, makes use of the Ointment, swallows an Egg poached soft, and goes to Bed. In about half an Hour the poor Wretch begins to sigh, and complain frequently, to draw his Breath deeper, with great Pain, and with his Head erect; at the same time he dreaded Water, and all Liquids: This was follow'd by so excessive a Pain in his Breast, that he knew not how to turn himself. On the sixteenth I was called in, and, finding him in this Condition, but still sensible, offer'd him Spring-water, Broth, and a Cardiac Mixture: At the Sight of these he grew very uneasy, leaped out of Bed, shook his Hands and Legs, and ran from Place to Place: He could not draw his Breath, without Convulsions of the Neck and Breast; soon after he uttered Noises, mix'd with Howlings, which did not so much resemble the Barking of a Dog, as a Voice interrupted by frequent Convulsions of the Jaws and Breast: The Shortness of his Breath permitted him to speak but half Words. All this while he discover'd not the least Inclination to bite the Company; but, being perfectly in his Senses, wished for Death. In the mean time, he felt an inextinguishable Thirst, either not being able, or not daring, to drink: If the Door or Windows were open'd, the Symptoms increased; for he dreaded the Air no less than Liquor: His Difficulty of Breathing, after a small Intermission, would return greater, bringing with it a plentiful cold Sweat, which accompanied him to the last: Tho' he abhor'd all Liquids, or, if he was prevail'd on to taste them, was seized with a Tremor in all his Limbs, as if he dreaded instantaneous Suffocation, yet he shew'd no such Dislike to Solids; for, in Hopes of Relief, tho' with great Difficulty, he would swallow Bread, a comforting alexipharmic Electuary, or any thing of a thick Consistence: He had frequent Reachings, but never vomited; sometimes went to Stool, and discharged a small Quantity of lixivious Urine: His Pulse was unequal and weak, the Tendons of his Muscles almost always in a strong Vibration: His Abdomen never swelled; there was no Alteration, either in the Size or Colour of his Arm, at least as it appear'd to me twelve Hours before his Death: Towards his End he complain'd, that the Pains were remov'd from his Arm to his Breast and Heart, and that his Difficulty of Breathing increased every Moment. When he could take no more internal Medicines, and all Externals were found inefficacious, on the sixteenth of *March*, about Midnight, after he had been afflicted with the Hydrophobia above thirty Hours, he was suffocated.

Fifteen Hours after his Death, I open'd him, in the Presence of *Johannes Hoferus*, and others, and observ'd the following remarkable Circumstances: The Scars of his Wounds were neither red nor livid, but retained the natural Colour of the Skin; but there appear'd manifest Indications of a Gangrene and Sphacelus on the Shoulder and Scapula of the affected Side, and all

over the Back; for these Parts were very livid; and the same Appearance reached to his Left Breast. Upon opening his Abdomen, we found the Intestines not inflated, but interspersed with several red Spots, the Signs of so many Inflammations: In the Stomach we met with a small Quantity of a Humour, which was crude, turbid, yellowish, and somewhat ferid; in this were contain'd some yellow Moleculæ, like the hard Yolk of an Egg.

In the Coats of the Stomach, especially about the Orifices, there appear'd some red Spots, larger than those of the Intestines: The other Viscera of the Abdomen were found entirely sound: But, when I laid open the Thorax, I was surpris'd to find it overspread with Blood, and of a redish and somewhat livid Colour.

The Lungs, every-where adhering to the Pleura, resembled a Mass of concremented Blood: Extravasated and coagulated Blood was found in their Vesicles, so that an unequal Tumor of the Lungs was observable.

The membranous Interstices between the cartilaginous Ringers of the Aspera Arteria were intensely red: That Part of the Diaphragm which was adjacent to the Ribs, discover'd some Marks of a beginning Gangrene, by its preternaturally red and livid Colour. Upon making an Incision into the Ventricles of the Heart, the large Vessels about this Organ, or into the Lungs, all was found full of a concremented Blood, almost entirely destitute of Serum. *D. Theodorus Zwingerus, in Ephem. German. Dec. 3. A. 2.*

That I may not mislead any one, I must remark, that this Case manifestly contradicts what I have said above, relative to the Healing of the Wound.

The Prevention and the Cure of this Disorder, if we except a few Instances, are highly dubious and uncertain. The Reasons of this want of Success seem to be a boasting Pretence to many Specifics, and the Neglect of a due Method, founded upon the History of the Disorder.

So far, therefore, as we may conjecture from the History of this Disorder, from comparing it with other Diseases, and from the few Instances in which it has terminated happily, it seems to consist in a particular Affection of the Nerves, of the convulsive Kind, with which the Viscera, and their respective Vessels, are seiz'd. From these a peccant Condition of the Blood and Humours approaching, as it were, to a gangrenous Inflammation, takes its Rise. The principal and original Seat of the Disorder seems to be about the Stomach, and the Parts most contiguous to it.

With respect to the Methods of Cure, *Celsus* proposes the following:

When a Person is bit by a mad Dog, the Poison is to be extracted by means of Cupping-glasses; after which, if the Part is neither nervous nor muscular, the actual Cautery is to be apply'd to the Wound; but, if it cannot be cauteriz'd, it is expedient to take a due Quantity of Blood from the Patient. When the Wound is cauteriz'd, the same things are to be apply'd to it, which are proper for other cauteriz'd Parts. When the Application of the actual Cautery is contra-indicated by the Circumstances before-mention'd, the Wound is to be dress'd with strong Corrosives. After which, no other Treatment is requir'd, since the Wound is to be incarn'd and heal'd in the ordinary manner. Some, immediately after the Bite of a mad Dog, immerse the Patient in a warm Bath, where they permit him to sweat as long as his Strength will allow, with the Wound in the mean time open, that the Poison may be the more effectually discharg'd. Then they dress the Wound with a large Quantity of rich Wine, which is contrary to all Poisons; and, when these Measures have been persisted in for three Days, the Patient is thought to be secur'd against Danger.

But, when the Effects of Wounds of this kind are not duly guarded against, that Species of Disorder, which the *Greeks* call *Hydrophobia*, is generally produc'd, in which the Patient is tormented, at once, with a Dread of Water, and an insatiable Thirst. In this Case, few or no Hopes of Relief are to be conceiv'd. The only remaining Step to be taken, is to throw the Patient unexpectedly into a Pond, in which, if he cannot swim, he is to be suffer'd to sink, and be rais'd alternately, till he has drank enough; if, on the contrary, he is a skilful Swimmer, he is to be immers'd in the Water, till he has swallow'd a sufficient Quantity of it. By this means, both his Thirst, and his Dread of Water, will be remov'd; but, if his Body is weak and tender, it is to be dreaded, lest the Coldness of the Water should produce Convulsions, which may prove fatal to him. In order to prevent this Accident, he is to be immers'd in warm Oil, immediately after he is taken out of the Pond. *Celsus, Lib. 5. Cap. 27.*

Boerhaave's Directions are thus:

In order to prevent the Effects of a Bite inflicted by a mad Dog, it is necessary, first,

That as soon as the Poison is received into the Body, the whole Part immediately affected, and those adjacent to it, should have deep Scarifications made in them, so that they may discharge large Quantities of Blood. Then large Cupping-glasses, which attract strongly, are to be apply'd; or the Part is to be burn'd pretty deep with the actual Cautery, and afterwards kept in a continual

continual Suppuration, by the Application of such Things, as by their perpetual Corrosion induce an exulcerated State of the Parts. During the Whole of this Time, from the very Beginning to the End, the Part is, without Interruption, to be fomented with a Brine or Pickle prepar'd of Sea-salt and Vinegar, and these Measures are obstinately to be persisted in for six Months.

Secondly, The Cloths, or other Things, which have touch'd, or come near the Poison, are to be thrown away, and carefully avoided.

Thirdly, The Patient is, immediately after receiving the Misfortune, to be thrown headlong into the Sea, or some River, with a great deal of Apparatus, threatening Words, and other Circumstances capable of striking Terror into him; for which Purpose he is to be frequently immers'd in the Water, and again taken up. And this Method is to be often repeated with the same Train of Circumstances; for the good Effects are only produc'd by the Dread and Consternation into which the Mind is thrown, and not by the Salt-water; as we learn from the melancholy Case of a certain Man, who, after being bit by a mad Dog, was shipwreck'd, but was afterwards seiz'd with an Hydrophobia, tho' he had been oblig'd to swim for several Hours in the Sea, and been frequently immers'd in the Waves. The Patient is also to be frequently purg'd with Rhubarb, Agaric, and the Juice of Elder-bark.

Fourthly, Let the Patient have a gentle Sweat excited every Morning before Eating, by taking a Mixture of aromatic Vinegar, Sea-salt, and warm Water.

Fifthly, Let the Patient daily foment his Feet and Hands in a Bath of Water. Let him also wash his Head, Mouth, and Fauces. 'Tis also expedient he should swim, or bathe, as often as possible.

Lastly, Let him frequently drink cold Water, till he throws it up by Vomit: He must often, likewise, use acidulated Liquors; and his Diet must be moist, light, and laxative; but he may frequently take them so liberally, as to vomit them again. He must, also, carefully abstain from large Quantities of aromatic Substances, from Wine, from Things of a heating Quality, from violent Exercise of Body, and all Commotions of Mind.

The Cure of the Disorder, when actually present, is principally to be attempted in the first Stage, or the Beginning of the second; for the Consequence of neglecting it longer is always fatal. It seems probable, says *Boerhaave*, that the following Method may be of some Efficacy, especially as this is confirm'd by some few Experiments.

Immediately upon the Signs of approaching Madness, the Case is to be treated as extremely inflammatory; in pursuance of which, a large Quantity of Blood must be taken away, by a large Orifice, even till the Patient faints. Then directly inject nitrous Clysters, mix'd with a little Vinegar. Thus:

Take Barley-water, ten Ounces; Nitre, two Drams; Elder-vinegar, and Honey of Roses, each an Ounce.

Or,

Take Rue-water, ten Ounces; Sea-salt, two Drams; Vinegar impregnated with Marigold-flowers, six Drams; Honey, an Ounce: Make a Clyster.

Let these be repeated boldly, and more frequently than is consistent with Prudence in other Cases. After this, his Eyes are to be blindfolded, and he is to be thrown into a cold Pond; or cold Water is to be thrown upon him, till he is no longer afraid of Water. Then let him be immediately forc'd to drink a large Quantity of Water, and towards the Evening of the Day, in which he has been thus treated, let a Sleep be procur'd. Let his Diet be always highly slender, and moistening.

In the *Histoire de l'Academie Royale des Sciences*, for the Year 1699, it is asserted, that Patients, labouring under an Hydrophobia, have been cured by throwing large Quantities of Water upon them; and an Instance is given of a Man ty'd to a Tree, and cured, by throwing two hundred Pails of Water upon him, without any other Means at all used.

But Mr. *Morine* furnishes us with a well-attested Case of a Girl of twenty Years of Age, bit in the Hand by a young Boy, who was mad. Upon this, she was seiz'd with all the Symptoms of Madness. And, at last, sixteen Days after the Bite, those who had the Charge of her, judg'd it expedient to bathe her in a large Tub full of River-water, rather cold than hot, and in which a Bushel of Salt was previously dissolved. In this she was plung'd quite naked, and taken up at different times. After she had been violently tormented in this manner, they left her sitting in the Bath in a great Consternation; and, when she look'd at the Water in which she was, she was astonished that she could view it without any Emotion.

After this, her Disorder was of the common Kind; she was seiz'd with a Fever, which was treated in the ordinary manner. She had frequent Inclinations to vomit, and her Vomiting afforded her Relief, whilst, in the mean time, Nature was assisted by other proper Means; she was several times afterwards put into the Bath, and at last perfectly cured in little more than a Month's time.

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In Imitation of this, vast Quantities of Water were pour'd upon a Chandler, as I remember, of *Leiden*, till he no longer dreaded Water; and this was several times repeated; but at last he dy'd, notwithstanding this Method.

Boerhaave farther says, that as this Method, which he recommends, is deduc'd from the Nature of the Disease, and the Rules of Art, so nothing can be more pernicious, than to murder the Patient, already parch'd with his Disorder, by the Exhibition of acrid, heating, and drying Medicines, and such as irritate the Nerves. Mean time, nothing can be more cruel and inhuman, than either utterly to neglect the Patient, without attempting his Relief; or to suffocate him, as is customary in *Holland*, after having obtain'd an Order from the Magistrates for that Purpose.

Hitherto, says *Boerhaave*, there is no Account, which can be depended upon, of any Remedy capable of curing this miserable Distemper, tho' many are celebrated for this Purpose; all which owe their Reputation either to barren Speculation, or too great Confidence in the Reports of others; nor excepting the Secret of *Æschrius*, mention'd by *Galen* and *Oribasius*, consisting of calcin'd River-crabs; nor the famous Opiate for the *Sicilian* Madness describ'd by *Scribonius Largus*; nor the Skin of an *Hyana* (see *HYÆNA*); nor the Medicine extol'd by *Actius*, *Rufus*, and *Posidonius*, consisting of the Ashes of Crabs with Mithridate; nor the boasted Remedy of *Palmarius*; nor the Remedy compos'd of Tin and Mithridate, too much extol'd by *Mayer*, *Grew*, and the Sportsmen; nor the Root of the Dog-rose, tho' revealed by a Dream, as is pretended; nor the *Lichen Cinerens terrestris*, however recommended; nor Pimpinell; nor the fry'd Liver of the mad Dog.

Thus far *Boerhaave*.

For an Account of the Efficacy of calcin'd Crabs, see *CANCER*.

The celebrated Remedy of *Palmarius* is this:

Take of the Leaves of Rue, Vervain, Sage, Plantain, Poly-pody, common Wormwood, Mint, Mugwort, Bastard Baum, Betony, St. John's-wort, and lesser Centaury, each equal Parts. All these must be gathered at the Time of Year when they are in the greatest Perfection, and must be dry'd separately, in a Place where they are expos'd neither to the Wind, nor the Sun. When these are powder'd and mix'd, a Dram, or a Dram and an half, must be given every Day; or, if the Bite has been long received, three Drams is the Dose. Mean while, the Wound must be dry'd with a Sponge, and embrocated twice or three times a Day, with Wine, or Hydromel, in which half a Dram of this Powder is mix'd; and a common Plaister must be laid upon it.

In the *Philosophical Transactions*, I find the following Medicines recommended, which are those hinted at above by *Boerhaave*.

Take Leaves of Rue, pick'd from the Stalks, and bruised, six Ounces; *London* Treacle, (or, which is better, *Venice* Treacle) Garlick peel'd and bruised, and fine Filings of Tin, each four Ounces: Put them in four Pounds of Canary, or good White-wine; or, in case of a nice or hot Constitution, into the same Quantity of strong and well-work'd Ale, in an earthen Vessel, well stop'd. Then let there be made a Digestion, or gentle Boiling of it, in a Bath-heat, for four Hours, shutting in the Steam; then press it, and strain it. The Dose is from two to three Ounces, (and in some Persons more) to be taken every Morning, for nine Days. The Party bitten must fast for three Hours after it, and the Dregs that remain after Expression, must be bound upon the Wound received, renewing it every twenty-four Hours. N. B. The ninth Day, after the Bite, should not be let slip before this Medicine be taken, lest the Poison seize the Blood too strongly. It must be given cold, or, at least, only a little air'd. A double Quantity may be given to a Beast, soon after the Bite.

I never found this Remedy to fail. *Theo. de Vaux*.

Take dried Rue, and Scordium, each two Drams; *Virginia* Snake-root, one Dram and an half; Flower of St. John's-wort, three Drams; fine Filings of Tin, and Garlick, cut small, each four Drams: Let them be all beaten, and exactly mix'd together, adding Syrup of Lemon-peel, enough to make it into an Electuary; divide this into nine equal Parts, one to be taken every Day, drinking after it a small Draught of good strong Ale. Let him walk upon it, and not dine till four Hours after. Use as little of the aforesaid Syrup of Lemon-peel as may be; and if that be not at hand, a Syrup made of *Malaga* Wine, adding as much Sugar as it can dissolve, may serve the Turn.

Mr. *Dampier*, who, as I apprehend, was Nephew to the celebrated Traveller of that Name, gives an Account, in the *Philosophical*

Iosophical Transactions, of a Cure for the *Hydrophobia*: It is, he says, a sort of Jews-car; but Sir *Hans Sloane* says, it is the *Lichen Cinerens Terrestris*, or Ash-colour'd Liverwort, describ'd by Mr. Ray, and grows commonly in barren Places all over England. This must be dried in an Oven, by the Fire, or in the Sun: Powder it, and pass it through a fine Sieve; and then mix it with the like Quantity of Pepper, finely powder'd, of which Composition four Scruples make a Dose. When given to a Dog, he must be kept from Meat a convenient Time; then blooded, and afterwards well washed all over; then give him the Medicine, mixed in a sufficient Quantity of Milk, or Broth, warm. If it be for Cattle, they must also be blooded, and well-washed. The Dose must be administered in a Drenching-horn, and proportioned to the Strength of the Animal. If to a Man or Woman, it must be given after Bleeding, and well washing the Face, Hands, and Place wounded, and all the Cloaths, which the Person had on when bitten, to wash away the Saliva that may have fallen from the Mouth of the Dog, or other mad Creature; which is all the Reason for washing. A Man or Woman may take it fasting, in warm Milk, Beer, Ale, Broth, or how they best like it, two or three Mornings, to make cure.

This has been taken into the College Dispensatory, under the Title of *Pulvis Antilyssus*; and is the celebrated Remedy published by Dr. Mead, with some Variation in the Proportion of the Pepper to the other Ingredients. The Directions, as made public, are, first, to take away nine or ten Ounces of Blood, and then to use the following Medicine:

Take of powder'd Ash-colour'd Liverwort, four Drams; and of the Powder of black Pepper, two Drams: Mix these together, and divide into four Doses, one of which is to be taken fasting, for four Days successively, in half a Pint of tepid Cows Milk. After taking these four Doses, the Patient is to be put, fasting, every Morning, for a Month, either into a cold Bath, a cold Spring, or a River. Let him immerse the whole Body, and remain in it, with his Head above Water, not longer than half a Minute, if the Water is excessively cold: Then let him bathe thrice a Week, for fifteen Days.

The Opiate of *Scribonius Largus* is thus directed:

Take of Syrian Spikenard, of Saffron, of Myrrh, of Costus, of Cinnamon, of Camel's Hay, of white Pepper, of long Pepper, of Castor, of Galbanum, of the Resin of Turpentine, and of Opium, each three Drams; of white Henbane, two Drams; of Anise, one Dram; of the Seeds of Smalage, and Gum Tragacanth, each six Drams; of *Athenian* Honey, one Sextarius; and of *Falernian* Wine, one Ounce. In this latter the Tragacanth, and the Opium, are to be macerated: And, next Day, the other Ingredients, being bruised, are to be mixed with the Galbanum, the Honey, and the Resin, which are to be melted over a Fire, in an earthen Vessel: Then the dry Ingredients are to be sprinkled in, and, if necessary, a little Honey may be added: and, that the whole Mixture may acquire the Thickness of a Cerate, it is to be again put on the Fire, and stir'd with an ashen Spatula. This Medicine is to be boil'd, till it has assum'd a salmon Colour; then the Ingredients, which are macerated in the Wine, are to be added, and the Antidote kept for Use, in a glass Vessel.

The Bulk of an *Egyptian* Bean, of this Medicine, is to be exhibited in Water. It removes Disorders of the Stomach, especially when accompanied with Fluxes; it also contributes to the Removal of that Species of Disorder in the Eye, called *Epiphora*; and cures Gapes, Inflammations of the Colon, Coughs, Pains of the Breast, and Liver. It is also good against Poisons, and the Bites or Wounds of Serpents. The Part bit by a mad Dog, or wounded by a Serpent, is to be kept long exulcerated, and the Formation of a Cicatrix is to be prevented, that the Poison may be the more effectually discharg'd: For this Purpose such things are to be externally applied, as exulcerate sound Parts of the Body, such as Garlick, Ditander, Celadine, *Batrachium*, Mustard, Squills, and Onions, with Vinegar. The Bark of the *Caprificus*, triturated, and applied by itself, is, also, excellent for this Purpose; and *Lusér*, by itself, does the same. *Scribon. Larg. 172.*

Pliny gives the following Account of the Discovery of the Virtues of the Root of the Dog Rose-tree.

The only Remedy for the Bite of a mad Dog, and which was but lately discovered, by something like an Oracle, is the Root of the Wild Rose, which is called *Cynorrhodon*. *Pliny, Lib. 8. Cap. 41.*

It lately happen'd, that a Woman, who had a Son that was a Soldier in the *Prætorian* Guards, was admonished, in a Dream, to send the Root of the Wild Rose, which they call *Cynorrhodon*, and which she had observed, but the Day before, as it were, courting her, with its pleasing Aspect, from among the Shrubs,

to her Son, then making the Campaign among the *Lacetani*, in the hithermost Part of *Spain*: This Son had the Misfortune to be bit by a mad Dog, and the Hydrophobia was coming upon him. The Present came with an Epistle from the Mother, conjuring him, by all means, to comply with the divine Admonition. The Success justified the Oracle, and the Man's Life was preserved, though his Case was look'd upon to be desperate; and the same Remedy has been always found successful in the like Exigence. *Pliny, Lib. 25. Cap. 2.*

Boerhaave, in his Aphorisms, treating of the canine Madness, advises us, not to despair of discovering a peculiar Antidote against this singular kind of Poison: And this, says he, we are encouraged to hope for, from the certain Instances we already have of Remedies effectual against particular Sorts of Poisons.

This, I believe, is applicable to most, perhaps all, other Distempers, at present esteem'd incurable, as well as to the Hydrophobia; for I am firmly persuaded, that the same Providence which has thought proper to inflict Distempers upon Mankind, has, at the same time, taken care to furnish us with Remedies adequate to their Cure; and that these might be discovered by a diligent Investigation, provided our Researches were directed with Prudence, and our Industry equal to the Task.

Encouraged by this way of thinking, somewhat more than ten Years ago, I had a mind to try what Effect Mercury would have upon Animals under canine Madness. And as my Endeavours to discover a Cure for this hitherto terrible Distemper were crown'd with a greater Degree of Success than I could reasonably hope for, I delivered in a Memorial to the Royal Society, in 1735. containing an Account of some successful Experiments; and I afterwards gave some more Cases, in a Pamphlet, published upon the same Subject.

The first Experiment was made upon two large Fox-hounds, in February 1731-2. They were so far gone as to refuse Food of all sorts, particularly Fluids; they flavered much, and had all the strongest Symptoms of an Hydrophobia. At Night twelve Grains of the *Turpeth Mineral* were given to each of the Dogs, which vomited and purged them gently. Twenty-four Grains were given to each, twenty Hours after, and forty eight more after the same Interval. The Dogs salivated considerably, and soon after lapt warm Milk. At the End of twenty-four Hours more, twenty-four Grains were repeated to only one of the Dogs; and, after this Dose, he lay upon the Ground, salivated extremely, was in great Agonies, and had all the Symptoms of a Salivation too precipitately raised, which he recovered, and lived many Years after. The other Dog relapsed, and died.

As the greatest Part of the rest of the Pack were suspected to have been bit, seven Grains of the *Turpeth* were administered to each of them, for the first Dose; and twelve more, after twenty-four Hours Distance, which was repeated every other Day, for some time, and likewise at the two or three succeeding new and full Moons. From this time the Pack continued sound; and, though several were afterwards bit by strange Dogs, the *Turpeth* always prevented any ill Consequences.

The same Experiment has been made since, upon a Multitude of Dogs, and never once fail'd, though Dogs bit at the same time, and by the same Dogs, have run mad after most other Methods have been tried.

In 1733. A Girl, about fourteen Years old, had the Calf of her Leg so torn by a mad Dog, that the Surgeon was obliged to use means to prevent a Mortification from the Bite. She was vomited by the *Turpeth*. Three Days before the next Change of the Moon, the Vomit was repeated; and again the very Day of its changing. The same Method was pursued the next full Moon: And the Girl continued well.

In November 1734. a Boy, about ten Years of Age, had four Holes made in one of his Legs, by a mad Dog. The *Turpeth* was given as above, and the Wounds dress'd with Digestives; and he continued well. These two liv'd near *Burton-upon-Trent*, and Mr. *Towndrow*, of that Place, was Apothecary.

A young Man of about Eighteen, near *Tamworth*, was bit in the Hand, and many Dogs were wounded at the same time in the Town where he liv'd, several of which ran mad, about six Days after the Mischief was done. Upon this Circumstance, he applied to Mr. *Wilson*, Apothecary in *Tamworth*, to whom I had communicated the Success of the *Turpeth*, in these Cases. The young Man was, at this time, very melancholy and dejected, had Tremors, and slept very little for some Nights before, though he was not apprehensive, that the Dog, which bit him, was mad. He had a dry Scab upon his Hand. On applying to Mr. *Wilson*, he was vomited with emetic Wine.

The next Medicine he took was made according to the following Prescription:

Take of Turpeth Mineral, twelve Grains; Lapis Contrayerva, one Dram; Venice Treacle, a sufficient Quantity to make three Boluses.

Let one be taken every Night, at Bed-time, with four Spoonfuls of the following Julap:

Take

Take of Rue-water, six Ounces; Treacle-water, two Ounces; Syrup of Peony, one Ounce and an half; Tincture of Cantor, two Drams: Mix, and make a Julap.

Upon taking these, he sweated very much, and had two loose Stools every Day after them; his Tremors went off, and he slept better. After this, he went into the Cold Bath, and continued perfectly well.

But what is remarkable in this Case is, that the Wound ran a thick digested Matter, after this Method, and threw off the Scab like an Eschar; after which it heal'd of itself.

A Boy, about Seventeen, and a Dog, were bit at the same Place, by a mad Fox, which had some time before been bit by a mad Dog. The Boy, for some little time, took Turpeth Mineral and Camphire, as an Alterative, and remained well: The Dog died mad in ten Days.

A large Hound, that had been bit by a mad Dog, was quite raging on Monday; and fourteen Grains of the Turpeth, made up with Butter, were thrust down his Throat, by means of a Hazle-stick. On Tuesday he had another Dose of the Turpeth, and he eat very heartily; on Wednesday the Turpeth was repeated; on Thursday he was unchain'd; and on Friday he went a hunting.

A Neighbour's Dog, being mad, came into my House, and wounded a middle-sized Spaniel Bitch, in several Parts. Immediately before, and after, he attack'd several other Dogs in the Neighbourhood. My Spaniel had her Wounds dress'd with a Mercurial Ointment, and took, every Day, for a Fortnight together, Turpeth Mineral, in small Doses, by way of Alterative. She was afterwards dip't, every Day, in cold Water, over Head, and is now alive and well.

As some of the other Dogs were much valued, the Tin Medicine was given to them, and some other things, commonly esteem'd Specifics; but, in a Fortnight, most of them ran mad, and the rest were destroy'd.

A Gentleman of Warwickshire had an Irish Wolf-dog, of uncommon Size, which, running mad, met his Daughter, about five Years old, in a Passage, threw her upon her Face, and had certainly kill'd her, had not a Garland been fortunately fasten'd to his Collar. A Garland is made of two Hoops, crossing each other, which, hanging before a Dog's fore Legs, prevents his running after Sheep, or being otherwise mischievous. When I arrived, six or eight Hours after the Accident, I found the Dog raging; and was inform'd, that her Cap had been pull'd off, her Hair very much disorder'd, and that the Dog had her whole Head several times in his Mouth. We were not, indeed, certain that she was bit, though there were several Scratches on the back Part of her Head; but, possibly, they might be made by the Comb. I directed for her Turpeth Mineral, in small Quantities, loaded with Camphire; which disorder'd her so much, that I was oblig'd, instead of it, to give Pills made with crude Mercury, divided with Turpentine, and Pilulæ Ruffi. She afterwards us'd the Cold Bath for some time, and continued perfectly well.

A Boy, about Fourteen, was brought to me, whose Arm had been much torn by a mad Dog, about ten Days before: His Wounds look'd very livid. He took the Turpeth, in large Quantities; his Wounds heal'd, and he continued well. Another Boy, who had been bit by the same Dog in the Head, and had not taken this Precaution, died mad in a very few Days.

I have, since, had so many certain Examples of the Efficacy of Mercury in preventing and curing an Hydrophobia, that I cannot doubt of its being, at least, as infallible in such Cases, as any one Medicine can be in any Distemper.

About six Years ago, the late Mr. John Douglas sent me a Letter, and in it inclos'd a printed Half-sheet, containing Instructions for the Prevention and Cure of the Hydrophobia. In this Paper he quotes *Default*, an Author I, at that time, had neither seen nor heard of, which Mr. Douglas, at my Request, sent me a few Months after.

As the Method, which *Default* proposes, and the Cases which he gives, strongly confirm the Efficacy of Mercury, it will not be superfluous to insert a Part of what he says upon this Subject, omitting his Theory, and whatever else seems of less Importance.

The Remedy, which I have tried, says he, with constant Success in the Hydrophobia, is a Mercurial Ointment, made of one third Part of Mercury reviv'd from Cinnabar, one third Part of human Fat, and as much of Hog's Lard.

One or two Drams of this Ointment at a time should be rubb'd, by Intervals, or successively, upon and about the Wound.

When a Person comes to me immediately after the Bite of a mad Creature, 1. I send him to bathe in the Sea; not that I have any Dependence upon its Efficacy, but, as it is authorized by public Opinion, it raises the Patient's Confidence, calms his Mind, and abates the great Fear which disturbs him Night and Day.

2. Immediately after his Return, I order him one Dram of *Palmaris's* Powder in White-wine, to which I have added Coralline, an excellent Anthelmintic. Those who cannot bear Wine, may take it in warm Water. This Dose must be repeated every Morning, for thirty Days, by those who have receiv'd a considerable Wound by the Bite; but only for twenty Days by those who had no more than a few Holes made with the Teeth.

3. From the first Day of using the Powder, I order a Friction of Ointment, to be administer'd as above directed. At first, the Friction must be repeated every other Day; after the third time, every third Day; and, after the sixth, every fourth, till two or three Ounces of Ointment have been us'd; the Quantity of which ought to be proportioned to the Strength, Age, Temperament, Sex, and Bite.

But when the Patient comes several Days after the Bite; to prevent the Rabies, I order him to make the Frictions every Day, to four or five times, and increase the Dose of the Powder. Then I interpose a Day or two, to avoid a Salivation; though I have often thought, a slight Ptyalism could not but produce a good Effect; for the Poison of the Rabies adheres to the Saliva; and, as Mercury naturally tends to the Mouth, doubtless the sovereign Antidote of so many contagious Poisons would likewise destroy that of the Hydrophobia.

4. I allow the Patient to wear Amulets about his Neck, and to apply any such trifling Remedy, to which he is advis'd, provided they do not weaken the Virtue of my Powder and Ointment; because they serve to pacify the Mind, which is a material Point.

5. I permit him to eat his usual Meals, prohibiting all Excesses; and Wine I allow him, in Moderation, which inspires him with Courage, and dispels his tormenting Fears. I take care, that they be not left alone, and desire their Relations to keep them Company, forbidding them to mention Madness, or mad Creatures. And I have found Music, while it lasted, suspend their Horror and Sadness.

A mad Wolf attack'd, before Day, two Dogs, belonging to *Pey Dumeniu*, of the Parish of *Souffans*, at *Mendoc*, the Farm belonging to *M. de Latour Demons*. The Engagement occasioned a great Noise, which waked *Dumeniu*, who run out, in his Shirt, to help his Dogs; and the Wolf bit him in both his Hands, and his Arm. His Son, named *Coussot*, runs out also, in his Shirt, to the Assistance of his Father, whom the Wolf leaves, and bites the Son severely in the Arm. The Father, though wounded, came to the Relief of the Son; and the Wolf, running away, meets a Neighbour, one *Jean Guiraud*, whom he bites in the Arm, making four large, besides several small Openings. *Guiraud*, seizing the Animal by one of his hind Legs, made him quit his Hold. The Wolf pursues his Course, and afterwards bites one *Criq*, a Shepherd of *M. Brestbonneau*. At last, the Animal was kill'd. The four wounded Men go to bathe in the Sea, and return with some Confidence of their Cure.

Some Days after, *Pey Dumeniu* feels a numb'd Pain about his Scars, which harden'd, and rose like Embroidery; and, soon after, he and *Criq* were seiz'd with all the Symptoms of Madness, and in that Condition they both expir'd.

Coussot, having seen the dreadful Death of his Father, expects the same unhappy Fate; and begins to perceive a Pain, and a hard Swelling in his Cicatrices. *Jean Guirard*, his Companion, is in the same Case. *M. Joutard*, Merchant, of *Castlenau*, immediately sends them to me. I was surpris'd at the Largeness of the Wounds, and, from their Appearance, did not question but Madness would soon ensue, if not prevented by an immediate Remedy.

I made them presently anoint the Cicatrices, and the whole Arm, with a Dram and an half of Mercurial Ointment, which was repeated three Days successively; then interpos'd a Day; and after the fifth Friction, two Days; and order'd, every Day, a Dram and an half of *Palmaris's* Powder.

After the third Friction, the Cicatrices grew flat and soft; the Pain went off; their Courage return'd; their Minds return'd their natural Tranquillity; and, at last, being perfectly cur'd, they return'd again to the Plough.

Can there be a stronger Instance, than this, of the Efficacy of Mercury in curing the Hydrophobia? Four Men are bit the same Day, and the same Hour, by the same Animal; two of them die of Madness, and the remaining two perceive the same Symptoms which foreboded Madness to the others; but Mercury secures them, assist'd by *Palmaris's* Powder.

R E M A R K S.

1. Old *Dumeniu* was bit in both his Hands, in the Arm and Thigh; the Number of his Wounds might accelerate his Madness; besides, as he was in his Shirt, they were made in Parts unclon'd.

2. In the Consternation the two Patients, who came to me, were in, I omitted nothing to raise their Courage; and even gave them my Advice and Medicines gratis, to shew them, by not being mercenary, how confident I was of Success.

3. As

3. As in the Venereal Disease Buboës, and Cicatrices, which grow hard and swell, are manifest Signs of the Pox; so the Swelling, Pain, and Hardness of their Cicatrices foretold, some Days before, that Madness was approaching. The Venereal Disorder is contracted by the Intromission of the Poison from one Body to another; so is the *Hydrophobia*. The Venereal *Virus* is some time before its Symptoms appear; the same Case happens in the Rabies. Authors observe, that the Venereal Distemper has concealed itself many Years before it appear'd; the same Observation has been made in the Rabies. Every one who exposes himself to receive the Infection from Women, does not catch it; so all those, who are bit by mad Dogs, do not contract the *Hydrophobia*. All these Strokes of Resemblance, between the two Distempers, are so many incontestable Proofs of the Usefulness and Efficacy of Mercury in the *Hydrophobia*.

As a farther Confirmation of the Efficacy of Mercury in the canine Madness, I must take notice of a Medicine which I hear has been successfully used, both as a Preservative from, and a Cure for, the *Hydrophobia*.

Mr. Cobb, of Buffelton, near Bristol, a Gentleman formerly in the Service of the East-India Company, brought from Tonquin a Sort of red Powder, which is much celebrated in that Country as efficacious in this Distemper. Upon Examination, this Powder proved to be native and factitious Cinnabar; and, according to the best Information I can get, Lady Frederick brought the same Remedy from the same Place. The Prescription is as follows:

Take of native and factitious Cinnabar, each twenty-four Grains; Musk, sixteen Grains. Let them be powdered and mixed well together.

This Powder is to be taken all at once, in a Tea-cup full of Arrack; and is said to secure the Patient for thirty Days: After which time, the Dose is to be repeated in the same manner; but it should be done as soon as possible after the Bite is received.

But, if the Patient has any Symptoms of the Disease upon him, the second Dose must be repeated three Hours after the first; and this is said to be sufficient for a Cure.

Mr. Cobb communicated this to Mr. Roberts, an Apothecary in Pall-Mall, who published the Receipt in some of the daily Papers; and, I hear, Sir Benjamin Wrench, of Norwich, has made some Experiments with it successfully, as well as many others.

The original Receipt was given me by another Hand in this Form:

Take two Candarines of the best Musk, five Candarines of native Cinnabar, and five Candarines of Vermilion; grind them fine, and mix them in a Cup of strong Arrack or Brandy.

A Candarine of China is the seventy-second Part of a French Crown or Dollar, and the eightieth Part of an English Crown; so that one physical Ounce is rather more than seventy-six Candarines.

Factitious Cinnabar is made of three Parts Mercury, to one of Sulphur; and one Pound of good native Cinnabar yields fourteen Ounces of Mercury; and therefore it seems, that the good Effects of this Medicine ought to be principally, if not entirely, ascribed to the Mercury. As to the Musk, it is an animal Substance, and consequently of an alkaline Nature; and as Alkalis have, in all Ages, been recommended in this Case, it seems to be, at least, not prejudicial, excepting in the Largeness of the Dose, when taken in this Climate, by People much less used to Perfumes than the Orientals, who, probably, gave Musk with the Cinnabar, in order to render the Medicine more agreeable.

That I may omit nothing which can contribute to set the Efficacy of Mercury against this sort of Madness in its true Light, I must confess, I heard it was made use of once, without Success; but I was soon after informed by the same Gentleman, who had first tried the Experiment upon his own Hounds, that a great Number of Hounds had run mad in the Gentleman's Kennel where the Remedy had failed, and, probably, had bit every Dog in it; that the Servants, being afraid to come near the Dogs, to give them the Medicine properly, threw a great Number of Balls, made with Turpeth mineral and Butter, into the Kennel; by which means some got more than their Share, and others none; so that those which got none went mad, and bit the others again. He added, that he had not the worse Opinion of the Medicine for this Trial, having never known it to fail, in a Multitude of Experiments made by himself.

HYDROPHTHALMIA, ὑδροφθαλμία, from ὕδωρ, Water, and ὀφθαλμός, an Eye, an Hydrophthalmia, is a Disease of the Eye, when it is distended by Water, or Serum, to an enormous Bulk, and swells out beyond its Orbit. See OCVLVS.

HYDROPHTHALMION, from the same as the preceding, is the Part under the Eye, which usually swells in cachectic and hydropic Cases. *Blancard*.

HYDROPHYLLON, Water-leaf.

The Characters are;

It hath a bell-shaped Flower, consisting of one Leaf, and cut into several Segments; from the bottom Part of the Flower arises the Pointal, which afterward becomes a Fruit, opening in two Parts, inclosing Seeds of the same Shape as the Vessel.

We have but one Kind of this Plant; which is,

Hydrophyllon; Morini. *Fontq. Hort.* WATER-LEAF OF MORINUS.

There are no medicinal Virtues attributed to this Plant at present, that I know of.

HYDROPHYSOCELE, ὑδροφυσόκηλη, from ὕδωρ, Water, φύσα, a Flatus, and κήλη, a Hernia, is a Hernia proceeding from Water mix'd with Flatulences. *Castellus*.

HYDROPICA (*Medicamenta*) Medicines against a Dropsy. *Blancard*.

HYDROPIPER, a Name for the *Perficaria urens*.

HYDROPNEMOSARCA, ὑδροπνευμόσαρκα, from ὕδωρ, Water, πνεῦμα, Spirit or Wind, and σάρξ, Flesh, is a Humour, or Abscess, produced from a Mixture of aqueous, flatulent, and carnosus Substances. *Castellus*.

HYDROPOIDES, ὑδροποειδής, from ὕδωρ, a Dropsy, and εἶδος, a Resemblance, is applied to aqueous Excretions, such as are familiar to those in Dropsies. The Word occurs in *Hippocrates, Lib. 4. de Morb.* and in some other Places.

HYDROPOTA, ὑδροπότης, from ὕδωρ, Water, and πότης, a Drinker. A Water-drinker. There is an Observation of *Helwigius* in *Bonet. Med. Septentr.* of one who contracted a Dropsy by drinking Water, and was cured by drinking Wine. *Castellus*.

HYDROPS.

That a Cachexy was a Disorder next in Degree to a Dropsy, was unanimously maintain'd by the Antients; for which Reason, in their Works, they generally treated of the latter, immediately after considering the former; but by none of them has the Analogy between these two Disorders been more judiciously shewn, than by the incomparable *Aretæus*, who, in the first Chapter of his second Book of *Chronical Affections*, uses the following Words: "A Dropsy in any of the more noble and important Viscera renders the whole Body of a bad Habit, so that no Part is free from its Share of the Misfortune; for Water, fluctuating in the lower Part of the Abdomen, is not properly what we call a Dropsy, since the Fault is not lodged there: But, when the Disorder is succeeded by Tumor, Inflation, and Unseemliness of Colour, that Disposition, in consequence of which the Juices are colligated, and converted into Water, is a Dropsy, strictly so call'd; for tho', in a Dropical Patient, there should be a spontaneous Discharge of the Waters, or tho' those should be artificially evacuated, by making Incisions in the Præcordia, yet the Dropsy is not, by these means, removed, but keeps its former Seat: The principal Cause, therefore, of this Disorder, is a Cachexy, or bad Habit of Body." By this Passage the celebrated Author insinuates, that the primary Disorder is a Cachexy, or bad Habit of Body, which is attended with an aqueous Tumor or Swelling, as its Symptom and Effect; since, tho' this was removed, the Disorder would still remain. In the subsequent Part of the Chapter, he continues thus: "Those labouring under an Anasarca are of a Colour resembling that which results from a Mixture of black and green, and their Veins are of a dark or obscure Colour." Now these Symptoms are very familiar to those who labour under a Cachexy. Besides, a Dropsy is produced by the same Causes, from which a Cachexy draws its Origin; as is sufficiently obvious, not only from the Testimonies of Authors, but also from the more sacred and inviolable Sanction of Experience. See CACHEXIA.

Since, then, a Cachexy is of so near Affinity to a Dropsy, that the former is justly accounted the Cause and Foundation of the latter; we may justly define a Dropsy a highly depraved Habit of Body, with respect to all its Parts and Functions, accompanied with a preternatural Stagnation and Collection of serous Humours, either in the whole Body, or in some particular Cavities of it.

That the vital, natural, and animal Functions, are, in a Dropsy, highly vitiated and injured, is sufficiently obvious from its Symptoms, which are judiciously and accurately collected by *Aretæus* in the before cited Part, in the following Words: "All Patients labouring under a Dropsy are pale, and afflicted with a Difficulty of Breathing, and Cough. They are, at certain times, slow, lazy, and have an Aversion to Aliments; and, if they eat any thing, tho' in a small Quantity, and free from a flatulent Quality, they are, nevertheless, much inflated and distended: Their Skins are entirely destitute of all Moisture; neither can a Sweat be raised on them by warm Baths. Besides, they are of a whitish Colour, and effeminate; their Sleeps are oppressive, troublesome, and short; they are subject to Deliriums, anxious and uneasy about Trifles, and excessively fond of living."

A Dropsy, almost from the very Infancy of Medicine, has been divided into three Species, *Anasarca*, *Ascites*, and *Tympanites*:

panites: The first is, when the entire Body is tumid; the second, when the Abdomen is turgid, and a Lymph, stagnating within its Cavity, overflows the Viscera; and the third, when the Abdomen is not so soft as to yield to the Impressions of the Fingers, but appears highly inflated and hard. But *Aretæus* has added a fourth Species, and made a certain Difference between an Anasarca, and a Leucophlegmatia, imagining, that tho', in both these Species of Dropsies, the Face and Arms are tumid; and that in a Leucophlegmatia, arising from a Redundance of Phlegm, as well as in an Anasarca, the whole Body is filled, and that all the Parts superior and inferior, the Breasts not excepted, become tumid, which principally happens to those who are young, robust, and in the Flower of their Age; yet, in an Anasarca, the Flesh is colliquated into a kind of sanious Juice, resembling that which is discharg'd from Members violently contus'd. Besides, he maintain'd, that a Leucophlegmatia was a milder, and more easily cur'd, Species of Dropsy; because there were various ways, by which it might be removed, such as by Sweat, Urine, and, sometimes, copious Stools; whereas, in the other Species of Dropsies, especially those of the complicated Kind, the Physician must change the whole Habit of the Body, before he can cure the Patient. By this peculiar Distinction, of singular Use in Practice, *Aretæus* seems to have insinuated, that in a Leucophlegmatia, as well as in an Anasarca, there was a large Quantity of Water, stagnating between the Skin and the Muscles; but that, in an Anasarca, the Blood, by which the Muscles are nourished, was, at the same time, highly corrupted, and consequently the Disorder proportionably more terrible. This beautiful Distinction is still more conspicuously made in the same Chapter, in the following Words: "Water between the Muscles" and Skin is sometimes form'd immediately after liberal Draughts of cold Liquor; when, for Instance, any one under the Influence of excessive Thirst drinks large Quantities of cold Water, and the Liquor is afterwards conveyed to the Peritonæum, by which the Heat of the Stomach and Abdomen are abated. Then the Drops of Water are discharged upon the Illia, which, being converted into Air, are carried off by Perspiration. When this, therefore, happens, before any of the Viscera, or the whole Body, is affected, the Disorder is proportionably the more easily cur'd."

To declare my Sentiments freely, Experience and Fact oblige me to maintain, with *Aretæus*, that a Leucophlegmatia is a gentler, and more easily cur'd, Species of Dropsy, than an Anasarca. These two are indeed generally confounded by modern Physicians; whereas by *Aretæus*, and *Cælius Aurelianus*, the former of these is styled *Intercus*, because the Water collected stagnates in the Cellule of the Fat, and, by that means, acquires a palish Colour; whereas in an Anasarca, or Hyposarca, in consequence of a greater Corruption of the Blood than in a Leucophlegmatia, the Colour of the Skin and Flesh is more unseemly, and appears of a blackish-green Hue; which is a manifest Sign, that the Viscera subservient to Sanguification, and the Depuration of the Humours, such as the Lungs, Liver, and Kidneys, are either too much relaxed, or infarcted, and consequently less fit for performing their natural Functions. When, therefore, a Leucophlegmatia is complicated with an Anasarca, a more terrible Species of Dropsy is produced, since the former is only the Beginning, and the latter the perfect State or Height of the Disorder.

But a still more formidable, and almost incurable, Species of Dropsy, is that called Ascites; the Symptoms of which are accurately enumerated by *Aretæus*, in the Part already quoted: "In Patients, says he, labouring under an Ascites, the Illia are tumid, and the Feet inflated; whereas the Face, the Arms, and all the other Parts of the Body, are extenuated. The Testicles become tumid, and the Prepuce, and whole Penis, appear to be wreathed, as it were, by reason of the Inequality of the Swelling. Upon reclining the Body to either Side, the Water produces both a Tumor and Fluctuation in the reclined Part, and the Noise of the fluctuating Liquor is heard." From these Symptoms we may infer, that in consequence of the large Number of ruptur'd lymphatic Vessels, there is a copious Extravasation of Lymph, and as it were an Inundation of the Viscera, by which they are, in Process of Time, totally corrupted.

As for that Species commonly called Tympanitis, and the dry Dropsy, in which the Abdomen, highly tense and inflated, sounds like a Drum, upon being struck with the Hand, we must observe, that it is rather a Symptom of an Anasarca and Ascites, than a distinct and separate Species of Dropsy; but if it accompanies these Disorders, as it generally does an Ascites, it denotes a highly deplorable and incurable Case, which, arising either from Flatulencies pent up in the Intestines, or from the Vapours exhaled from the Waters extravasated in the Abdomen, so destroys the Tone of the abdominal Muscles, that they become entirely languid.

But, that we may the more accurately investigate the Nature and Genius of a Dropsy, we shall describe its Beginning, trace its Progress, and enumerate the various Symptoms with which it is attended: First, then, a Swelling seizes the Feet,

which, in Process of Time, rises to the Thighs, the Groin, the Illia, the Abdomen, and the Pit of the Stomach. Sometimes the Abdomen, turgid with Water, is so excessively prominent, that the Patient cannot see his own Feet, but dreads a Rupture of his Abdomen. In Process of Time a Quantity of Water falls down into the Scrotum, and frequently distends it so much as to render it as large as one's Head. Not only the Scrotum, but, also, the Prepuce, and Penis, are so swell'd, as to become intorted, and prevent the free Discharge of the Urine. In which Case 'tis perceived, that the Water, which distends the Penis, is convey'd from the adjacent Region of the Groin, and insinuates itself between the Skin and Muscles of the Penis; whereas the Water which distends the Scrotum, is generally convey'd from the Abdomen through the Processes of the Peritonæum. Sometimes, also, especially in Patients labouring under an Anasarca, and Leucophlegmatia, it happens, that the aqueous Humour collected about the Groin, insinuating itself under the common Integuments of the Testicles, proves the Cause of a Swelling of the Scrotum, whilst the Abdomen, in the mean time, is entirely free from Water. Nor, in all dropical Patients, does the Scrotum become tumid, since I have known some Patients die of a Dropsy, without any Swelling in that Part. In Women, also, the Groins become tumid, and the Vagina is sometimes so distended by the Waters, as to fall down. Besides, a common Symptom of dropical Patients is a Difficulty of breathing; which being increased by violent Motion, and especially in the Night-time, by reason of the easy Ascend of the Water in the Abdomen, in consequence of the reclining Posture of the Body, frequently induces a Danger of Suffocation. Hence, if the miserable Patients have a mind to breathe freely, they are obliged to shift their Posture, and rather sit erect, than lie in Bed, as other Persons do. They are, also, afflicted with a Cough, which is generally of the dry Kind, and without Expectoration; whilst at the same time, an acrid, saline Lymph, which is peccant throughout the whole Body, in a particular manner, stimulates and irritates the slender Fibres of the Larynx, and Bronchis.

'Tis observable, that, in an Anasarca, the Urine is discharg'd thin and white, whereas in an Ascites it is evacuated in small Quantities, but thick, and with a copious red and lateritious Sediment. In the Beginning of a Dropsy, the Quantity of Urine, for the most part corresponds to that of the Liquor drank; the Body, also, is soluble, and the Appetite good; but all these lucky Circumstances gradually fail, in proportion as the Disease advances. Besides, the Patient is rack'd with a violent and insatiable Thirst, so that the Poet might justly say,

Quo plus sunt potæ; plus sitiuntur Aquæ.

The Reasons why a Dropsy is accompanied with this insatiable Thirst, are principally these: The Saliva, in consequence of an Obstruction of the salival Glands, can no longer lubricate and moisten the parched Fauces; besides, the small Quantity of Saliva, which is discharged from these Glands, is not only viscid and saline, but also immediately dried up by the febrile Heat; for the worst State of the Disorder is almost always accompanied with a slow and continual Fever, which may be sufficiently known from the small and frequent Pulse, and which, gradually preying upon the Flesh of the superior Parts, and impairing the Strength, at last puts an End to the Patient's Life. In an Anasarca, as well as in an Ascites, there is often a considerable Itching perceiv'd in the membranous Parts of the Feet, which are also observ'd full of livid Spots, and Vesicles, which latter, when open'd, discharge a Serum, that, by its Acrimony, corrodes or inflames the adjacent Parts. Hence malignant Ulcers are frequently produced, which, according to *Hippocrates*, in the eighth Aphorism of his sixth Section, are not to be cured and consolidated without the greatest Difficulty; for the Afflux of acrid Serum is too great to be mitigated by lenitive and drying Medicines. And this Species of Dropsy is generally accompanied with a Fever, which draws its Origin from an Inflammation of the Intestines, brought on, in a great measure, by drastic Medicines; and a Horror and Rigor, succeeding, are Signs that the Viscera are sphacelated, and fatally corrupted.

We now proceed to take a View of the Phenomena observable in dissecting those who have died of Dropsies: And, first, as for the Liver; we know, from the *Miscellan. Nat. Curios. Bonetus's Sepulchretum*, and the Works of other Anatomists, that this Organ, in dropical Persons, is, for the most part, found disorder'd: Sometimes it is pale, and almost without Blood; at other times it is tumid, black, dense, scirrhous, full of Hydatides, and, together with the Gall-bladder, contains either a Matter which is aqueous, and less bitter, or thick, and concreted, as it were, into small Stones. *Norstius*, in *Lib. 3. Obs. 9* and *Tulpius*, in *Lib. 2. Obs. 36*. inform us, that, in young Persons, they have observ'd the Liver contracted, as it were, into a Globe, and indurated to such a Degree, that it made a Noise upon the Application of the Knife, when they endeavour'd to make an Incision in it; and, that, in a Tympanitis, they observ'd it dry and torrefied, like corrugated Leather. But *Ruyssch*, in his *Observations*, and *Bonetus*, in his *Sepulchretum Anatomicum*, furnish us with Instances in which this Organ has been found sound, and, apparently, free

from every Disorder. Of this, also, *Riverius* seems to give us an Instance, in *Observat. Communicat.* 4. who, in a certain dropfical Patient, found the Liver in tolerable good Order, but the Spleen corrupted, and almost the Whole of its Substance resembling black Bile. With respect to the other Viscera, it is to be observ'd, that the Omentum, in dissecting those who have died of an Ascites, is generally found either corrupted and sphacelated, or extenuated and consum'd: The Pancreas is generally found scirrhus, and the Mesentery distended to a large Bulk, in consequence of the Vesicles filled with Water generally adhering to it, and its Glands swell'd to the Bulk of a Bean: Of this there is a memorable Instance, in the 35th Observation of the fourth Book of *Tulpius*: Nor do the Stomach and Intestines escape the Fury of this Disorder; for I have observ'd them inflam'd, sphacelated, and corroded. In a Tympanitis I have, also, observ'd the Stomach and Intestines turgid with Flatulences, as well as the Cavity of the Abdomen. Instances of this Kind are given by *Felix Platerus*, in *Lib. 3. Prax. Cap. 3. Obs. 50.* and by *Hercules Saxonia*, in *Prælect. Part. 2. Cap. 27.* With respect to the Stomach, it is observable, that its interior Coat is full of gibbous Knots, as large as small Nuts, which seem to be nothing but those military and round Glands, which, in a natural State, are small; and which, at other times, are observ'd scatter'd up and down the villous Coat, on that Side where it adheres to the nervous Coat.

Nor are the Viscera of the Lower Belly only affected by this Disorder; but it is, also, remarkable, that, in a Dropsy, whether of the Thorax or Abdomen, the Heart, and, especially, its Right Ventricle, is often distended to a surprising Bulk; so that, in two Subjects, I found it as large as the Heart of an Ox: With respect to this, the *Miscel. Nat. Curios. Dec. 1. An. 5. Obs. 64.* and *Bartholin. Cent. 2. Hystor. 66.* may be consulted. I can, from my own Experience, affirm, that in all the dropfical Subjects I have order'd to be dissected, I have, besides the Disorders of the Viscera, found polypous Concretions in the Heart, and its Vessels; and this is confirm'd by the Observations of several Anatomists. A memorable Instance, of this Kind, is recorded in *Miscel. Nat. Curios. Dec. 2. An. 5. Obs. 66.* where, in a Person cut off by an Anasarca, the Intestines, the Omentum, the Pancreas, the Liver, and Spleen, were found perfectly sound; but, in the Right Ventricle of the Heart, there was a Polypus found, another in the Vena Cava, and another in the Pulmonary Artery; so that the Patient, during his Life, had just Reason to complain of a Rupture in the Right Side of his Heart. In the same Work, *Cent. 9. Obs. 50.* we have an Account of the Dissection of a dropfical Woman, in the Right Ventricle of whose Heart there was a Polypus, a Quarter of an Ell long, and running down into the Pulmonary Artery. More Examples of this Kind may be seen in the same Work, *Cent. 3. Obs. 117. Cent. 8. Obs. 41. and Decad. 2. An. 6. Obs. 73.* Only we must observe, that where the Vessels of the Heart are full of polypous Concretions, there is, generally, a large Quantity of Serum found in the Cavity of the Thorax.

As for the Serum collected in the Cavities of the Body, it generally varies, with respect to its Quantity, Colour, and Consistence; for sometimes it is like Water, but somewhat thicker, and, when put over the Fire, is concreted into a Jelly; at other times it is yellowish, and not unlike the Washings of Flesh. As for the Quantity of the Serum, this also varies, in proportion to the Bulk of the Body, and the Length of the Disease; for sometimes it has been found equal to thirty, sometimes to sixty, and, at other times, to an hundred Pints. But the greatest Part of this Water, or Serum, is contain'd in the Cavity of the Abdomen, or between the Peritonæum and Muscles of the Abdomen: But that this Water is sometimes included in a Sack, form'd in the Duplication of the Peritonæum, is sufficiently obvious from anatomical Observations; and, of this, we have a memorable Instance, recorded by Mr. *Littre*, in the *Memoires de l'Academie des Sciences*, for the Year 1707.

Having thus enumerated the Phenomena observable in dissecting Persons who have died of Dropsies, we now come to investigate the principal and immediate Causes, which generate or produce the Waters. The Antients, who were ignorant of the curious Laws of Hydraulics, so accurately observed in the human Body, and, especially, of the Circulation of the Blood, assigned, as the Cause of this, a bad Sanguification, and a Convection of the Blood to Water, in consequence of some Disorder in the Liver: But, in our Days, as the Structure of the human Body, and the Laws of the animal Oeconomy, are more accurately investigated, we may, with far better Reason, assign the following Causes for this Effect. In my Opinion, then, a more satisfactory Reason can hardly be advanced for a dropfical Swelling, than the difficult, slow, and obstructed Circulation of the Blood thro' the Vessels. This Assertion is sufficiently confirm'd by an Experiment first made, so far as I know, by the celebrated Anatomist *Lower*, who, with a Thread, tied up a large Vein in a live Animal, and suffer'd the Ligature to remain for an Hour; upon which he forthwith perceived an oedematous Tumor, in that Part to which the Ramifications of that Vein were distributed. Something analogous to this is observ'd, when,

in order to stop violent Hæmorrhages, the Instrument, commonly called the Tourniquet, is applied; for, if this Instrument remains applied for a long time, the Part is gradually raised into a Tumor. This is, also, illustrated by another Experiment; for, if the Subclavian Vein in the Right Arm, for Instance, of a dead Person, is strongly compressed, and a somewhat thick red Liquor afterwards injected, by means of a Syringe, into an Aperture made in the Vein of the Hand, the Arm becomes tumid; and, upon laying it open, we find that a large Quantity of the red Liquor has penetrated into the Cellulæ of the Fat, lying under the Skin; for no other Reason, than that the injected Liquor, in consequence of the Resistance made by the Ligature, too much distends the Veins running through the Cellular Membrane, and is, at last, extravasated through their Pores.

From these Experiments it is, if I mistake not, sufficiently obvious, that the true Cause of the Swelling of the Body in a Dropsy, of the Secretion of the Serum from the Blood, and of its Stagnation in the Cavities, is a too slow and languid Circulation of the Blood, especially through the Veins. The Truth of this Assertion will be still more evident, if we consider, how easily the Circulation of the Blood, through the Veins, is stop'd; and that, principally, for these Reasons. The Motion of the Blood through the Veins, from the inferior to the superior Parts, is, in consequence of their perpendicular Situation, and the stated Laws of Hydraulics, much slower than in the Arteries; hence the Veins are not only more numerous, but have, also, larger Diameters, than the Arteries: The Coats of the Veins, also, are not furnish'd with so strong a systaltic, moving, and elastic Force, as is found in the Arteries: Besides, the Coats of the Veins are highly slender, porous, and, consequently, capable of allowing a thin Fluid to pass easily through them. Now, if, by means of a Redundance of serous Humour, the Tone and Strength of the Vessels, especially of the Veins, should, in consequence of their too great Distention, be impair'd and weaken'd, the Circulation of the Blood through the whole Body, which regulates all its Functions, and preserves them entire, must necessarily become languid, and be diminish'd; as is obvious from the Pulse, which, in this Case, is rare, soft, and weak. From this languid Circulation of the Blood we deduce the genuine Cause and Reason, not only of the preternatural Swelling, but, also, of the other Symptoms which accompany a Dropsy; such as Weariness, Heaviness of the Body, Listlessness, and a Diminution of the salutary Excretions by Sweat, Urine, and Stool.

Besides these, an insupportable Difficulty of Breathing is almost a perpetual Symptom of every Dropsy, and, sometimes, rises to such a Height, as to endanger a Suffocation: This formidable Symptom can hardly have any other Cause assigned for it, than a too weak systaltic Force of the Heart and Arteries; in consequence of which, the Blood, abounding with a viscid Serum, cannot pass sufficiently freely through the minute Ramifications of the Pulmonary Artery and Vein; hence it stagnates in these Ramifications, and, regurgitating to the Right Ventricle of the Heart, produces a strange Uneasiness: And, since the principal Office of the Lungs consists in this, that whilst the Blood passes thro' the numerous and minute Vessels of their vesicular Substance, the Lymph and Chyle may be intimately mix'd with its Parts, and impregnated with a kind of subtle and elastic Air, that thus the Blood may be render'd spirituous, fluid, and fit for adding Strength to the Body, hence we may justly infer, that a slow and languid Circulation of the Blood through the Lungs is the fatal Cause of the terrible Symptoms, with which the Dropsy is accompanied; for, by this means, the whole Work of Sanguification is injured, and, instead of a Blood sufficiently florid and temperate, the Vessels must necessarily be filled and infarcted with a redundant Serum. The State of the Patient is still more deplorable, when polypous Concretions are already form'd in the larger Vessels of the Heart and Lungs; since, by this means, the Circulation of the Blood through the Vessels of the Heart and Lungs is not only retarded, and, stagnating there, produces various Misfortunes, but, also, begins to stop in the whole Vena Cava, and all the Parts to which it is distributed; hence an incredibly large Secretion of Serum is produced. The more difficult it is to remove this deep-rooted Obstruction, the more rationally we may conclude, that the Dropsy arising from it is of the worst kind, and not to be cured without the greatest Difficulty.

Having thus traced the Generation of a Leucophlegmatia and Anasarca, we now come to consider that of an Ascites: In this Species of Dropsy, therefore, I shall not hesitate to affirm, that the Liver is principally disorder'd, since the Circulation of the Blood is not so slow in any of the other Viscera as in this; and tho' the succussory Commotion of the Liver, by means of the Diaphragm, in the Act of Respiration, and the Strength of the Coats, with which, from anatomical Observations, we know the Vena Portæ to be furnish'd, seem greatly to promote the Circulation of the Blood; yet, when a viscid Blood is convey'd to the Vena Portæ, this Vein, in consequence of its wanting both a Pulsation and Valves, with Difficulty transmits the viscid Blood through the numberless minute Ramifications of the Vena Cava: Hence a strong Tendency of the Blood to Stagnation and Infarction

farction is brought on. If, therefore, in consequence of using a small Quantity of Drink, a sedentary Life, a free Use of Acids, the Abuse of spirituous Liquors, Hæmorrhages, or Fevers preposterously cured by Astringents, a Redundance or Lentor of the Blood, and Lymph should be brought on; or if, in consequence of many violent Commotions of Mind, and the Shock of preceding Diseases, the Tone of the Liver, and its Vessels, should be preternaturally weaken'd; these Vessels must, of necessity, be infarcted, and the due Proportion of their Diameters to the Blood, which ought to move through them, being, by this means, destroy'd, it stagnates here-and-there, in their Cavities; and its aqueous Part, being secreted, fills the lymphatic Vessels, great Numbers of which are found there: Besides, the preternatural Spissitude of the viscid Lymph renders its Circulation through the Liver proportionably more or less faint and languid. If a pretty thick Lymph, secreted from the Blood, should remain in the Liver, and, in consequence of the Dissipation of its more fluid Parts, assume a proportionably greater Degree of Thickness, the Coats of this Organ will become thick, indurated, and, at last, degenerate into a Scirrhus; but the Induration will be principally observable in the more internal Parts; whereas the Scirrhus will be form'd in the external membranaceous Parts, and the Vessels lying nearest to the Surface. That the principal Seat, therefore, of an Ascites is the Liver, is sufficiently obvious from the Instances of Dissections already given.

But, besides the Liver, the other abdominal Viscera are not entirely free from the Effects of the Disorder; for *Riverius*, *Schenkius*, *Forestus*, and myself, have frequently seen the Spleen preternaturally large, distended with a black Blood, and cover'd with a scirrhus Membrane. According to *Rondeletius* and *Peyer* in *Observat. Anatom.* the Pancreas is, almost in all dropical Patients, found hard, scirrhus, and sometimes totally consum'd: The Omentum is putrid and emaciated; the Glands of the Mesentery, Intestines, Duodenum, and Stomach, are preternaturally tumid and indurated. In my Opinion, these Viscera receive the Taint from the preternatural State of the Liver, and the too languid Circulation of the Blood through its Vessels, and that, principally, by reason of the strict Union, and intimate Connection, between their respective Vessels; for it is certain, from anatomical Observations, that all the Blood, which returns from the Stomach, the Intestines, the Mesentery, the Pancreas, the Omentum, and the Spleen, is convey'd into the Vena Portæ, and, by its means, through the vascular Structure of the Liver, to the Vena Cava, and the Heart. If, therefore, the progressive and circular Motion is stop'd there, it is absolutely necessary, that the Blood, regurgitating to the abdominal Viscera, should, in them, produce Stagnations, Infarctions, a scirrhus Disposition, and Corruption.

As the Return of the Blood is highly slow through the Uterus, especially through the spermatic Vessels, which are contorted, folded up, and divided into various Curves, as it were, like the Tendrils of Vines, which makes its Journey to the Heart so much the longer; hence it happens, that in the Uterus, and its Appendages, such as the Fallopian Tubes, and the Ovaria, copious Inundations, and aqueous Tumors, are sometimes produc'd; for the fluid and aqueous Part never more readily and expeditiously secedes from the Blood, than when its Circulation through the Viscera is slow and languid, as is obvious in the Liver. And, for this Reason, there is no-where a greater Number of lymphatic Vessels, than in the Substance of the Uterus and Liver, and their adjacent Parts; which Vessels, being distended by a copious Congestion and Afflux of Lymph, are raised into large Vesicles, by the *Greeks* called *Hydatides*, by the Breaking of which a Dropsy is sometimes suddenly generated, and an incredible Quantity of Serum discharged into the Cavity of the Abdomen. Thus *Salmuthus*, *Cent. 1. Obs. 38.* informs us, that in a certain Woman, who died of a difficult Labour, he found a large Number of Hydatides in the Confiner of the Uterus: And *Pechlinus*, in his 19th Observation, tells us, that he saw the same, in dissecting a Woman, who died during Gestation. That in the *Cornua* and Tubes of the Uterus large Quantities of Water are, sometimes, collected, is sufficiently confirm'd by *Tulpius*, who, in the fourth Book of his Observations, *Observat. 45.* gives us an Instance of a Woman, who, in both *Cornua* of the Uterus, had about nine Pints of Water and Pus included in a large Number of small Bladders. More Instances of this Nature may be found in *Schenkius*, *Lib. 3. Obs. 6.* and *7.* in *Rolfinkius de Organ. Genital. Cap. 20.* and in *Sydenham, de Hydrope.* This Truth is, also, confirm'd by an Observation of *Harder*, who tells us, that in a Country-woman not only the Left Ovary contain'd two Pints of a saline and serid Water, but, that there was, also, a considerable Hydatid or Vesicle full of Water, in the Fallopian Tube, annexed to it. And I myself, twenty Years ago, observ'd, in a Woman of forty Years of Age, a Swelling, produced by a violent Fall, on the hypogastric Region, and accompanied with a tensive Pain: This Swelling was succeeded by a large Discharge of limpid Water, which was, at first, evacuated with the menstrual Blood, and continued to flow for half a Year after the menstrual Evacuation stop'd; so that, at least, one Pint of this Water was daily discharged, till, at last, the Patient, having

in vain tried a great many Remedies; and, being spent with a Consumption, and slow Fever, exchanged her miserable Life for another State.

There are, also, frequent Instances, some of which I myself have seen, in which a Dropsy has been concealed under the Disguise of Pregnancy: Hence it is, that young Physicians are so often misguided in their Estimates, with respect to this latter State. But I have seen pregnant Women, who, at the same time, laboured under a Dropsy, preserved by a copious Discharge of Water after Labour; whereas those who have not the Advantage of this Circumstance, generally die; since the Humour is previously discharged into the Cavity of the Abdomen.

Platerus, in *Lib. 3.* of his Observations, gives us a memorable Instance of a Woman, who was seized with an Ascites every time she became pregnant: For this Reason I am of Opinion, that dropical Swellings, in Women, arise rather from the Fault of the Uterus than that of the Liver, and Viscera connected with it; and that they are more easily cured, than when the Liver is primarily affected; because, in the former Case, a freer Discharge is afforded to the stagnant Serum through the Pores of the Uterus, than in the latter.

As for the procacetic Causes of this Disorder, we observe, that Persons of a tall Stature are, in a peculiar manner, subject to Dropsies, both of the Abdomen and Thorax; for, as in these the Distance between the Feet and Heart is greater than in others, and the Situation of the Body at the same time perpendicular, so the Circulation of the Blood is, generally, slow and languid, and, consequently, render'd difficult by the slightest accidental Causes: Hence it is, that polypous Concretions are generally found in tall Persons, who have died of a Dropsy of the Thorax, or an Anasarca. Those, also, who are of a soft spongy Habit of Body, who have less firm Fibres, in which an aqueous Substance predominates, those we call phlegmatic or languinephlegmatic, are highly subject to Dropsies: Those who are over-fat, those who in their Infancy have been afflicted with catarrhus Defluxions, or who have been often subject to cedematous Swellings, are, also, highly obnoxious to Disorders of this Kind: Old Persons, in whom, by reason of the impair'd Elasticity of the Vessels, the Excretions are not duly carried on, and the Lymph acquires a preternatural Lentor and Viscidity, are, for this Reason, frequently subject to dropical Swellings: Those who lead sedentary Lives, such as Tailors, Shoemakers, and Weavers, are, all other Circumstances being alike, more subject to this Misfortune than others: Those, also, who breathe a moist Air, which impairs the Vigour of the Fibres, such as Bathkeepers, Fishers, Fullers, and such as wash Clothes, are more subject to Misfortunes of this Kind than others: The Places and Countries in which we live, have, also, a very considerable Influence in producing this Disorder: For which Reason more dropical Patients are found in marshy Places, and on the Sea-coast, than in Continents, and Places remote from the Sea: An Instance of this we have in *Holland*, both on Account of the Impurity of its Air, and its Contiguity to so large a Quantity of Water.

It may also happen by Accident, (a Change of the Inhabitants Method of Living, for Instance) that a Place, before not naturally subject to generate Dropsies, may afterwards become so. This, *Dr. Lister*, in his *Treatise de Hydrope*, has very judiciously shewn to be true, with respect to *England*; for improper Aliments and Liquors contribute very considerably to the Generation of Dropsies. Among Aliments, those which are thick, crude, viscid, and sweet, or Voracity alone, especially in those who use little Exercise, pave the Way, and, as it were, lay a Foundation, for this Disorder. But Dropsies are more frequently produc'd by the Liquors drank, when peccant, either with respect to Quantity or Quality. Hence we observe, that those who drink excessively large Quantities of Liquors, sufficiently innocent when moderately us'd, generally become dropical in a Tract of Years, unless an uncommon Strength of Nature, and Soundness of the Viscera, prevent their Misfortune. This is sufficiently confirm'd by the Fate of those who swallow large Quantities of new and ill depurated Ale, especially that which is prepar'd of Wheat. But we are certain, from daily Experience, that no Liquor is more prejudicial in this respect, than Brandy and Malt Spirits. Hence the Spirits distill'd from Malt, sharpen'd with Aromatics, and commonly call'd Aqua-vitæ, may, with far better Reason, be call'd the Waters of Death, especially when taken on an empty Stomach. Besides, nothing more speedily generates this Disorder, than large Draughts of cold Liquors, immediately after excessive Heats; so that *Aretæus*, in the Passage before quoted, justly affirm'd, that "a Dropsy is sometimes generated by drinking large Quantities of cold Liquors, in order to remove an insatiable Thirst." Thus, *Sylvius*, in his *Treatise de Morbis Epidemicis*, tells us, that, by liberal Draughts of cold Liquor, during a febrile Heat and Thirst, a Dropsy was brought on in two or three Days time. This Disorder is still more to be dreaded from the liberal Use of marshy stagnant Waters, which *Hippocrates*, long ago, class'd among the Causes of a Dropsy. Hence also, the Reason is obvious, why, as we have already observ'd, Dropsies are most frequent in marshy Places, and on the Sea-coast.

coast. Dropsies may, also, be produc'd by the unseasonable Use of mineral Waters, whether of the hot or cold Kind, without a proper Regimen; many tragical Instances of which have occur'd to myself in Practice.

But, among all the Causes which concur to the Production of other chronical Disorders, and especially the Dropsy, none is more considerable than the Passions of the Mind; especially long-continued Grief and Sorrow, which have so surprising an Influence, that by destroying the Vigour, Tone, and Strength of the Viscera, and moving Fibres, they render the Circulation of the Blood languid, and produce a Suppression of the Excretions. Nor does violent Anger contribute less effectually to the Production of this Disorder, especially if large Quantities of cold Aliments or Liquors are used immediately after; for such an Error is immediately succeeded by a violent Uneasiness and Constriction of the Præcordia, a cachectic Colour, a Loss of Appetite, a Difficulty of Breathing; and, in Process of Time, a Dropsy. Instances of this, I myself have more than once observ'd. The Reason of these Misfortunes seems to be this: That, by the violent Commotion of Mind, the Stomach and Duodenum, together with the adherent biliary Ducts, are violently and spasmodically constricted. Hence the due Secrecion of the Bile and pancreatic Juice, in order to promote a laudable Digestion, is not only prevented, but, also, in consequence of the large Quantity of Aliments and Liquors, excessive Flatulences are generated, which check the due Discharges by Stool, and render the Circulation of the Blood unequal.

Besides, nothing more directly contributes to the Production of Dropsies, than the Suppression of usual and critical Evacuations of Blood, such as the Menses and Lochia in Women, and the Hæmorrhoids in Men, as *Hippocrates* has justly observ'd in the twelfth Aphorism of his sixth Section. Thus, *Dion Cassius* informs us, that the Emperor *Trajan*, upon a Suppression of the hæmorrhoidal Discharge, was seiz'd with an Ascites, of which he was cured; but, happening to relapse, fell a Sacrifice to the Disorder. 'Tis, also, certain from Experience, that violent Hæmorrhages, whether from Wounds, the Nose, the Uterus, or the Veins of the Anus, contribute very powerfully to the Generation of Dropsies; for the sacred and inestimable Treasure of Life is wrapt up in the Blood: So that, when too large a Quantity of this is evacuated, the minute Vessels, subservient to the Purposes of Secrecion and Excretion, collapse, and become too narrow. In consequence of this, neither is a laudable Blood generated, nor the nervous Fluid duly secreted, a Circumstance which produces a Weakness and Imbecility of the Solids. Nor are the impure and recrementitious Juices eliminated, in consequence of which, an insupportable Load of Impurities is accumulated in the Body. I would not be thought to affirm, that every large Evacuation of Blood produces the Dropsy; but in Patients, where other Causes concur, I am of Opinion, that this Circumstance very readily produces it. Thus I have known some Persons, who, in consequence of an Obstruction of the Viscera, labouring under Scumy and Cachexy, and abounding with an acrid and impure Blood, have, after frequent and violent Hæmorrhages, fallen into a Dropsy; certainly not in consequence of the Hæmorrhages alone, but also in consequence of the bad Habit of Body, and Dyscrasy of the Humours produc'd by the Obstructions. Immoderate Dysenteries, also, frequently lay a Foundation for Dropsies. Hence, *Hippocrates*, in the forty-third Aphorism of his sixth Section, justly affirms, "that Persons labouring under Disorders of the Spleen, when seiz'd with a Dysentery, which continues for a long time, die either of a Dropsy, or a Lien-tery."

Preposterous Methods of curing Diseases, used by unskilful Physicians, also, frequently prove the productive Causes of this Disorder; when, for Instance, they all on a sudden stop and suppress immoderate Discharges of Blood, or other Humours, by Astringents, Opiates, or Narcotics. Dropsies are also generated, when intermittent Fevers, especially of the Quartan-kind, which generally have their Seat in the Liver, are, before the Obstruction is remov'd, and the febrile Matter corrected, too soon stop'd by Specifics, among the Number of which is the Peruvian Bark; for these Fevers very readily terminate in a Cachexy and Dropsy, as *Hippocrates* and *Galen* long ago observ'd. 'Tis certain from Experience, that this Misfortune frequently happens in Northern Countries; and I have often observ'd Dropsies succeeding epidemical Fevers, especially in the poorer Class of People, whose Circumstances could not afford proper Medicines. Dropsies, also, sometimes seize those who, in acute Fevers, in order to extinguish the Heat, or quench the Thirst, use too large Quantities of Drink, without having sufficient Evacuations by Urine or Perspiration. It also, frequently happens, that ill-manag'd Mercurial Salivations colligate the Blood to a kind of Serum, and by destroying the due Tone of the moving Parts, bring on Dropsies. The more drastic Purgatives are also justly enumerated among the Causes of Dropsies, since by their means, the due Tone of the Viscera is not only destroy'd, but also the Strength too much impair'd by an excessive Loss of Serum, in consequence of thirty, or perhaps more Stools a Day; by which means, instead of a pure

and temperate Blood, crude Humours are generated in the Veins.

Both Dropsies of the Breast, and an Ascites, are also frequently generated by the Recess, or preposterous and injudicious Repulsion of the Itch, arthritic Disorders, and the Gout; as also by the sudden Consolidation of old Ulcers and Fontanels. And, which is still more surprising, I have observ'd a Repulsion of cedematous Swellings of the Feet, by whatever means, succeeded by a violent Oppression and Uneasiness of the Breast, which were again followed by a Dropsy; for the thick and vapid Serum, which lay stagnant in the Feet, is by Swathing forc'd upwards; and, being absorb'd by the sanguiferous Veins, is convey'd to the Præcordia; and, being thence carry'd with the rest of the Humours, from the Right Ventricle of the Heart, to the Pulmonary Artery, and its Ramifications, fills them with such an excessive Load of Humours, as by compressing the pulmonary Vessels, resists the Ingress of the Air into them in a Degree sufficient to propel the Blood thro' the Veins. The Blood, therefore, in this Case, regurgitates to the Right Ventricle of the Heart, and, by distending it, creates great Uneasiness, and a Difficulty of Breathing. Since, therefore, by this means the Circulation of the Blood thro' the Lungs is render'd highly flow and languid, the Serum is not only secreted through the Pores in the Cavity of the Breast, and extravasated from the numerous lymphatic Vessels of the Lungs; but the Circulation of the Blood in the whole Vena Cava is, also, in some measure, stop'd and retarded, so that it is not surprising, that there should, also, happen large Stagnations and Extravasations of Serum in the inferior Parts.

Having thus taken a View of the Ætiology of this Disorder, it now remains, that we accurately distinguish it from other aqueous Tumors, that by this means we may be able to take the more judicious Measures for its Cure. A Dropsy then ought not to be confounded with cedematous Swellings of the Feet, since the latter may happen without any Danger in sound Persons of a soft and spongy Habit, who are addicted to a sedentary Life. These kinds of cedematous Swellings are very frequent in pregnant Women, but, after Delivery, cease spontaneously, without the Assistance of Medicine; for they are produc'd by the great Dilatation of the Uterus, which so compresses the Vena Cava, between that and the Vertebrae of the Loins, that the Blood cannot rise to the superior Parts with its usual Freedom. It, also, frequently happens, that Tumors are produc'd in the inferior Parts, by a Compression of the Iliac Vessels, by means of Flatulences strongly distending the Intestines. But when the Tone of the Intestines is restor'd, and the Flatulences expel'd, these Tumors are easily remov'd. Sometimes, also, we observe Swellings of the Legs produc'd by an Obstruction of the free Circulation of the Blood, in consequence of a violent and temporary Compression of the Thighs, in riding long Journeys.

We must be highly careful not to confound an Ascites with Pregnancy, which is no hard Task to a judicious Observer; for, in pregnant Women, the Colour of the Countenance is fresh and lively, and the Tumor of the Abdomen unequal, and rising, as it were, to the Præcordia; whereas, in dropical Patients, the lower Part of the Abdomen is tumid, the Tumor is equal, and the Breasts subside. This latter Case is, also, accompanied with a Thirst, which, in Gestation, is far less. Besides, in an Ascites, there is always a Fluctuation perceived in the Abdomen, and the Water falls whichever Way the Patient reclines. The Motion of the Fœtus, also, in the Uterus, which generally happens about the twenty-seventh Week, removes every Possibility of a Mistake. Nor is it to be denied, that, in pregnant Women, leucophlegmatic Swellings now-and-then appear at the same time; but this principally happens when they are with Child of Twins, or too plethoric, in consequence of having neglected Venesection.

'Tis, also, to be observed, that a Polypus of the Heart is sometimes accompanied with a Swelling of the Thighs and Legs, without either an Anasarca, or an Ascites. This is known to be the Case, by the violent Strainings of the Breast, by the unequal intermittent, and frequently varying Pulse; and, especially, by a Dread of Suffocation, after the Sallies of Passion, or violent Exercise. 'Tis not, however, to be denied, that this State is, when other Causes concur, succeeded by a true and legitimate Dropsy.

There is, also, a considerable Difference between a spurious and legitimate Ascites. The former is, when the Water is not contained in the Cavity of the Abdomen, but is pent up in Membranes, and included, as it were, in the Sack of the Peritonæum; for which Reason, some Authors call it *Hydrops Saccatus*. With respect to this Species of Dropsy, the Reader may consult the *Miscel. Nat. Curios. Decad. 2. An. 8. Obs. 23.* as also Mr. *Littre*, in the Work before quoted. He may also consult a Dissertation delivered before *Albertus de Hydropse Saccato, per Lapsum in Abdomen curato*. In an Ascites, on the Contrary, the extravasated Water stagnates in the Cavities of the Thorax and Abdomen.

With respect to the Prognostics, and Event, of this Disorder, *Aretæus*, in the Part already quoted, remarks, That

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"All the Species of Dropsies are bad; the mildest is a Leucophlegmatia; a Tympanitis is dangerous; but an Anasarca "worst." We may, in general, affirm, that an Ascites is incurable when inveterate, and arising from other Disorders, in which the Viscera are already corrupted, or beginning to be so; when the Water is discharged from ruptured lymphatic Vessels or Hydatides; when the Patient is racked with Thirst, and the superior Parts of his Body extenuated; and when the Urine is small in Quantity, highly red, and deposits a Sediment. On the contrary, we assert, with *Hippocrates*, that the Dropsy admits of a Cure, in which the Viscera are obstructed, but not scirrhus and corrupted; in which the Patient retains his Appetite, breathes with Ease, and discharges thin Urine, especially if he has the Advantage of Youth on his Side. When a Dropsy, especially a Leucophlegmatia, or an Anasarca, arise from an Asthma in plethoric Patients; from drinking too much in Fevers; from too keen an Appetite after the Cure of Fevers; or from violent Hemorrhages; there are sufficient Hopes of a Cure, provided the Relief of the Patient is seasonably attempted by proper Remedies.

A Cough, happening in an Ascites, is an unlucky Omen, as *Hippocrates*, in *Aph.* 35. of *Seft.* 6. and *Aph.* 47. of *Seft.* 7. justly observ'd: But we do not here mean that slight and gentle Cough, which generally seizes the Patient about the Beginning of the Disorder. It is also a bad Symptom, when the Appetite and Strength are lost; when the Thirst is increased; when a large Quantity of Liquor is drank, and but little discharged by Urine: Febrile Horrors, accompanied with an internal Heat, happening in an Ascites, are bad Symptoms, and generally prognosticate the Death of the Patient. Hemorrhages from the Lungs, and the Veins of the Anus, happening in an Ascites, generally prove fatal Symptoms; as also an Erysipelas of the Legs, accompanied with a Fever, as is observed by *Hippocrates* in the seventh Book of his *Epidemics*. The Person who, after the Cure of an Ascites, relapses, is not to be cured without the greatest Difficulty; and, if he should relapse a second time, he rarely ever escapes. The Reverse of this holds true, with respect to an Anasarca; which, when periodical, is not so dangerous as that which is fixed and permanent. 'Tis, besides, to be observed, that Persons do not readily die of Dropsies, except they have polypous Concretions in the Heart, and pulmonary Vessels, a Scirrhus in the Liver, the Glands of the Mesentery tumefied; or, if Women, unless the Uterus is scirrhus and corrupted.

A Dropsy is sometimes happily terminated by the powerful Efforts of Nature, without any Assistance from Art; whilst the Water makes way for its own Discharge, either from the Feet, a Rupture of the Navel, or an Aperture of some other Part of the Abdomen. *Hippocrates*, in his *Coacta Prænotiones*, observes, that a Diarrhœa, happening in the Beginning of a Dropsy, is salutary. Instances of this kind have occur'd to myself, in which, during the Course of a long-continued Diarrhœa, pure Water has been discharged by Stool, and the Dropsy, by that means, happily removed. On the contrary, if, in a consummate and inveterate Dropsy, where the Viscera are already corrupted, a Diarrhœa happens, the Hopes of Recovery are but faint and ill-grounded. *Fernelius*, in his *Pathologia*, *Lib.* 6. gives us a memorable Instance of a Woman, in whom, just on the Approach of her Menstrues, a Humour congested in the lower Part of her Abdomen was spontaneously discharged thro' the Uterus, so that in two Days time the whole Swelling subsided; and, as it was again formed next Month, it was, at the stated time, again totally discharged in the same manner.

THE CURE.

Before the Physician attempts the Cure of this Disorder, he ought carefully to consider, whether it will admit of a Cure, or is absolutely incurable. If he should perceive, that it is incurable, he ought rather to decline the Attempt, than hazard his Reputation; or, at least, to secure the latter, by making a positive and absolute Prognostic, with respect to the Fate of the Patient. The most genuine Method of Cure consists in pursuing these two Intentions: First, to evacuate the stagnating Waters, collected in the Cavities of the Body, and between the Skin and Muscles; and, secondly, to remove the Cause, by means of which the Waters have been, and are still, daily accumulated. The Evacuation of the Waters seems but to contribute very little to the Cure, unless the Cause, producing the Extravasation of the Waters, is, at the same time, removed; for, when the Cause is not taken away, the Waters are soon generated afresh. But, because the Force and Energy of the Medicines, proper for removing the Cause of this Disorder, are much impaired by the Load of Waters; and because the Parts, in which they stagnate, are, in Process of Time, injured and corrupted, the Physician's principal Care ought to be to free the Body, as much as possible, from all Impurities and recrementitious Juices.

For this Purpose, unless Nature does the Work, either by a copious Diarrhœa, or a Discharge of the Water from the Feet, we are carefully to deliberate, whether the End can be commodiously, and without Danger, obtained by the Paracen-

tesis. With respect to this, there is a memorable Passage, in the 21st Chapter of the third Book of *Celsus*, which runs thus: "*Erastistratus* condemned the Method of Cure by the Paracentesis, because the Water is in vain evacuated; since, in consequence of the Disorder of the Liver, it is soon generated afresh. But this Distemper does not arise solely from the Fault of the Liver; for the Spleen is affected, and the whole Habit of the Body bad. Besides, if the preternatural Collection of Waters is not evacuated, it proves injurious, not only to the Liver, but also to the other Parts. 'Tis certainly expedient, that the Patient should, if possible, be cured; tho' this Evacuation does not promote the Cure, but only make way for the Operation of Medicines, which was prevented and frustrated by the included Waters. 'Tis also certain, that all Persons cannot be cured by this means, but only young and robust Patients, who are either entirely free from a Fever, or, at least, have long and favourable Intermissions; for those whose Stomachs are corrupted, those in whom a Redundance of black Bile has produced this Disorder, or who are of a bad Habit of Body, are by no means fit Patients for having this Method of Cure tried upon them."

My Opinion, with respect to the Paracentesis, is, that, when in the Beginning of the Disease, whilst the Viscera are as yet sound, and the Abdomen turgid with an intolerable Load of Water, which frequently happens in a Leucophlegmatia, both with and without an Anasarca, and when the Waters cannot be safely evacuated by Purgatives, then the Operation may be performed, provided the Patient will submit to it, and the Operator observe those Cautions laid down by *Brunner*, in the *Miscell. Nat. Curios. Decad.* 2. *An.* 8. for this celebrated Physician there directs a Tincture prepared of Myrrh, Aloes, and camphorated Spirit of Wine, to be injected, in order to prevent the Putrefaction of the Serum contained in the Abdomen, which easily happens by the Admission of the Air after the Paracentesis. Nor, to use his own Words, have we any Reason to be afraid of the Effects of this Preparation in the Abdomen; for it is so far corrected by the Water lodg'd there, that the Tendons and Nerves are not in the least irritated by it; for in a Dog, when the Intestines have been inflam'd, I have, with Success, used Spirit of Turpentine, which is still hotter. Nor do I doubt, but that if, by any Art or Expedient, this Fermentation of the Lymph in the Abdomen, and the Inflammation, could be prevented, the Paracentesis might be had in greater Esteem, and such Effects brought about by it, as have to others appeared impossible; for, after the Evacuation of the Waters in the Abdomen, the lymphatic Vessels, whether corrupted or corroded, would be sooner healed than otherwise they are." This Operation is not only used without any Danger, but is in a manner absolutely necessary in a Dropsy of the Peritonæum. In a desperate Ascites, I have known it used, not in order to produce a Cure, but with a View to prevent Suffocation, and preserve the Patient a little longer alive. Besides, in an Anasarca, I have often seen a large Quantity of Water happily evacuated by Scarifications duly made in the Scrotum and Legs. But, in this Case, a Gangrene of the Parts is carefully to be guarded against.

But when, in an Anasarca, or a Leucophlegmatia, a large Quantity of Waters may be easily evacuated by Medicines, this is to be attempted in the Beginning of the Disease, especially by pretty strong Purgatives, exhibited in sufficient Doses, and seconded by a proper Regimen. Let us, therefore, inquire what Medicines have been us'd by Physicians, for this Purpose. First, then, Elaterium has been highly recommended, not only by the Antients, but, also, by the Moderns, as proper for evacuating the Waters. Thus *Dioscorides*, in *Lib.* 4. *Cap.* 151. tells us, "That Elaterium is highly beneficial to dropical Patients, by evacuating the Waters without Danger, and without proving offensive to the Stomach." *Avicenna*, *Celsus*, *Alexander Massari*, *Jacobus Bontius*, *Hercules Saxonia*, *Johannes Heurnius*, *Gabriel Fallopius de Medicinal. Agniti*, *Resner*, and *Henricus ab Heer*, bestow very high Encomiums upon this Medicine. Among the *English* Authors, *Lifter* and *Sydenham*, in his *Treatat. de Hydrop.* prefer Elaterium, for this Purpose, to all other Purgatives. The latter of these Authors uses the following Words: "Elaterium, exhibited in a small Quantity, powerfully contributes to discharge the Fæces, and eliminate large Quantities of serous and aqueous Humours." After Elaterium, Gamboge, about a Century ago, began to be highly celebrated, as proper for evacuating the Waters; and, for this Purpose, half a Scruple, or twelve Grains, may be exhibited. Extract of Spurge is, for this End, warmly recommended by *Rulandus*; and the Juices of common Orris, and the middle Bark of Elder, are justly esteem'd efficacious Hydragogues, not only by Physicians, but, also, by the Vulgar.

As for the Operation of these Medicines, it is to be observ'd, that by means of their acrid, volatile, and caustic Principle, they vellicate the nervous Parts of the Stomach, and, by that means, excite a Vomiting, even in sound Persons. But, in dropical Patients, like Emetics prepar'd of Antimony, they operate rather

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rather more by Stool, than Vomit; perhaps, because the nervous Coats of the Stomach and Intestines are render'd too flaccid and relax'd by the stagnating Water. Hence, at the same time, it sufficiently appears, that the more mild and gentle Purgatives are by no means sufficient to eliminate, by Stool, the great Load of Waters treasur'd up in the whole Body; but that such Medicines are requir'd for this Purpose, as, by a certain subtil and penetrating Salt, stimulate the whole System of the nervous and muscular Parts, especially the Stomach and Intestines, and by that means eliminate large Quantities of Water. The Hydragogues and Emetics, already mention'd, are, of all others, the most efficacious, if their Doses are duly proportion'd to the Vigour or Delicacy of the several Constitutions to whom they are exhibited; for there are numberless Instances of Persons cur'd of Dropsies by a large Dose of a proper Hydragogue, after thirty or more Stools.

These drastic Purgatives and Emetics may be made up into various Forms, which I have us'd with Success in Practice. Thus,

Take of Flatterium, of the Extract of black Hellebore, of Wormwood, of the lesser Centaury, and of Mercurius dulcis, each one Dram; of the Extract of Saffron, twelve Grains: Mix together, and, with Peruvian Balsam, form into a Mass, from every half Dram of which prepare twenty Pills to be taken in the Morning.

Or a purgative Infusion may be prepar'd thus:

Take of the middle Bark of Elder, of Bryony-root, of common Orris, of the fibrous Roots of black Hellebore, of *Alexandrian* Rhubarb, of red Gentian-root, of Swallow-wort, of Lovage, and of fresh Orange-peel, each one Ounce and an half; of the Tops of the lesser Centaury, four Pugils; of Cloves, three Drams; and of the Tartarus tartarizatus, one Ounce: Infuse in two Pints of Wine, a sixth Part of which is to be taken for a Dose, twice a Week.

Besides the Purgatives taken by the Mouth, Clysters are, also, of singular Efficacy in eliminating the Waters, especially those prepared of the Roots of Asarum, the middle Bark of Elder, the Roots of common Orris, the Tops of the lesser Centaury, Elder-flowers, and the Four carminative Seeds, together with Wine and Water, adding a sufficient Quantity of the Oil of common Chamomile, and two Drams of *Epsom* Salt. Nor in all dropical Patients is it at all times necessary to attempt the Elimination of the Waters by drastic Medicines; for it is sometimes more advisable to exhibit those of a more mild and gentle Nature, in larger Doses, which often produce the same Effect, with more Ease and Safety; for I have often seen more than ten Pints of Water discharg'd with Ease, by drinking, in half an Hour's time, three Ounces of the best Manna, two Drams of Senaleaves, and the same Quantity of Cream of Tartar, dissolv'd in Spring-water. Among the more safe Hydragogues we may, also, reckon a Dram or two of the Powder of white Mechoacan, either with or without Cream of Tartar. Rhubarb, whether in Substance, or reduced to an Essence, with Terra foliata Tartari, is, also, justly recommended for this Purpose. Thus *Adolphus Otto* has, from *Montanus*, given us a memorable Instance of a certain Man, who, when his Abdomen, Legs, and whole Body, were swell'd to such a Degree, that his Life was despair'd of, had the Serum entirely eliminated, and a perfect State of Health restor'd, by the continual Use of Rhubarb, proceeding from Drams to Ounces of this Medicine.

After a sufficient Evacuation by Stool, Diuretics of an attenuating Nature, and such as resolve viscid Humours, are to be us'd. The most considerable and efficacious of this Kind are the Salts of medicinal Springs, such as those of *Egra*, the *Caroline*, and *Sedlitz* Waters in *Bohemia*, which, when drank pretty liberally, not only powerfully evacuate the Waters, but are, at the same time, possess'd of an aperient and diuretic Quality. For this Purpose, we must, also, recommend neutral Salts, such as the Tartarus tartarizatus, the Terra foliata Tartari, Sal Polychrestum, antimoniated Nitre, a Solution of Crabs-eyes prepar'd with Cream of Tartar, volatile Salt of Amber, reduced to a neutral Salt with Oil of Tartar *per Deliquum*, and, especially, purified Nitre, or, which is still more efficacious, Nitre regenerated from a Mixture of Spirit of Nitre and Oil of Tartar *per Deliquum*; all which Medicines are highly efficacious in resolving Obstructions of the Viscera, and opening the urinary Ducts of the Kidneys. But it is to be observ'd, that all these are to be taken in a large Quantity of Liquor.

Besides these, no less considerable an Advantage is promised from exciting a Discharge by Urine with the Salts of Herbs, obtain'd by Incineration, such as the Salts of Wormwood, and Carduus Benedictus, the Salt of Tartar alone, duly calcin'd, the Liquor of fixed Nitre, and the *Liquor Silicum* of *Glauber*; which when exhibited in pretty large Doses, I have often known to produce wonderful Effects, in removing cedematous Tumors. To this

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Class of Medicines, also, belong the sweet Spirit of Nitre, the Anodyne mineral Liquor, the Clyster Animonii; which liquid Medicines may, with great Success, be exhibited either alone, or in Conjunction with the above-mentioned Salts, according as the State and Circumstances of the Patient require.

The Vehicle in which these Medicines are taken, is, also, a Circumstance of very considerable Importance; for the neutral Salts, above-mentioned, prove far more efficacious, if exhibited either in Whey, or the Water of Strawberries, or in *Moselle* Wine, which is a powerful Diuretic, than in any other Liquor. I have, also, to the surprising Relief of Patients, order'd a Decoction of the Five aperient Roots, the Roots of Eryngo and Rest-harrow, the Seeds of Carrot and Celery, Juniper-berries, and Winter-cherries; which Decoction may, also, be used for common Drink.

Sudorifics are by no means proper, when the whole Body abounds with impure and sordid Juices, and when the subcutaneous Emunctories are block'd up and concreted; for dropical Patients are not, without great Difficulty, dispos'd to sweat. And it, by being kept too warm, or by means of volatile Sudorifics, Sweats should be forced, an Inflammation accompanied with a Fever, or a Translation of the Serum to the Heart or Brain, or a Suffocation, or a Lethargy, or an Apoplexy, are justly to be dreaded. This Caution ought, also, to be carefully observ'd with respect to the Use of Laconic Baths, prepared with Spirit of Wine. But when the Body is freed from the preternatural Load of Humours, both by Purgatives and Diuretics, and when Nature herself tends to a freer Perspiration, and an Evacuation by Sweat, then we are not to use the drastic, but the more mild and gentle Diaphoretics, such as the Mixture simplex, the Mineral Liquor, mix'd with a small Quantity of the Bezoardic Spirit of *Bussius*, Tincture of Antimony, or Powders of the Cerufs of Antimony, of Salt of Carduus Benedictus, and of purified Nitre, either alone, or mix'd with Rob of Elder, or dwarf Elder; all which Medicines are highly beneficial, especially when frequently and prudently us'd, or when their Operation is assisted by Lomentations of warm Wine, especially *Hungarian* Wine, applied with Linen Cloths.

In order to render these internal Evacuants still more efficacious, we are to second them with external Applications, which are of singular Use and Advantage in Dropsies; for when a large Quantity of excrementitious Humours are collected in the external Parts under the Skin, and destroy the Tone and Strength of the solid Parts, common Sense informs us, that such external Applications, as by their corroborating, balsamic, and resolvent Quality, not only attenuate the stagnant Humours, and render them fit for being received into the Pores of the Vessels, but, also, resist Putrefaction, and restore the Strength and Tone of the relaxed Parts, must necessarily contribute very much to the Elimination of these Humours through proper Emunctories; and I, myself, have often known more happy Effects produc'd, and in an easier manner, by these external Applications, than by internal Remedies. The Substances most proper for answering this Intention are, the Roots of Lovage, Orris, Squills, and Sowbread; the Leaves of dwarf Elder, the Herbs Germander, Carduus Benedictus, and Wormwood; the Flowers of Roman and common Chamomile, together with those of Elder, Bay, and Juniper-berries; together with the Seeds of Caraway and Cumin. Of these Sacks, or Epithems, may be prepar'd, and after being immers'd in Wine, Wine-vinegar, or boil'd in Lime-water, apply'd warm to the Abdomen, Legs, and Scrotum, and renewed when they become cold. These Epithems are, in my Opinion, far more proper than external Applications in other Forms, such as Plaisters and Ointments.

Though these Remedies, both of the internal and external Kind, are of great Efficacy in removing a Dropsy, yet they do not absolutely complete the Cure, since, for that Purpose, the Causes must be removed, and the future Generation of the Waters prevented. To these Evacuants we must, therefore, join Corroboratives, since the impair'd Tone, and weaken'd systaltic Force, both of the Viscera and Vessels, are the principal Causes of the slow and languid Circulation of the Blood and Lymph, and consequently of the Stagnation. Corroboratives, therefore, are, of all other Medicines, the most efficacious, both for preventing this Disorder, and Relapsing into it. For answering this Intention we recommend the Roots of Burnet, Swallow-wort, Arum, and Zedoary; the Extracts of Wormwood, red Gentian, Carduus Benedictus, Germander, and the lesser Centaury; as also Peruvian Bark, Cascarella, and Caper-bark, Myrrh, Amber, and Cinnamon. Of these an Essence, or Elixir, are to be prepar'd, with some thin Menstruum, and *Hungarian* Wine, which may be exhibited according to the State of the Patient, with some chalybeated Liquor, such as the Tinctura Moris Zwelferi, and continued for a due time, in proper Doses; for this Medicine not only strengthens the Stomach and Intestines, but also the Viscera subservient to Chylification and Sanguification, such as the Liver, Lungs, and Spleen. It also successfully promotes the salutary Excretions, if they should happen to be either obstructed or suppress'd.

It is a Question of great Importance, whether Venesection is proper in dropical Cases. Though this Evacuation may possibly seem improper, because the Body is rather filled with Serum, than Blood; and the solid Parts are entirely deprived of their Vigour and Strength; and though Authors, especially those of a latter Date, scarcely mention Venesection, as beneficial in the Cure of this Disorder; there are, however, in the Works of the ancient Physicians, many Passages where Venesection is highly extol'd in the Cure of a Dropsy. Thus *Hippocrates*, in his *Treatise de Diata in Acutis*, expresses himself in this manner: "If a dropical Patient is afflicted with a Difficulty of Breathing, if this should happen in the Spring, and if the Person is young and robust, a proper Quantity of Blood must be taken from his Arm." And the learned *Jacobus Sponius*, in his *Aphorism. Nov. Sect. 5. §. 87.* subjoins a very memorable Observation in the following Words: "I have often seen, says he, a Dropsy cured by Venesection, which was rather increased, than remov'd and abated, by Hydragogues and Diuretics, of whatever Kind." With respect to this important Affair, *Alexander Trallian* thus gives his Sentiments: "Tis sometimes necessary to cure an Anasarca by Venesection. If not only the Liver, but also the Stomach and Spleen, have contracted a Swelling and Hardness, Evacuations of Blood, in small Quantities, and at different Times, may be boldly used, especially if a sufficient Degree of Strength does not contra-indicate it, if a large Quantity of Blood is perceptible in the Veins, if the Patient is in the Flower of his Youth, and the Season of the Year not very cold." *Paulus Aegineta*, in the forty-eighth Chapter of his third Book, confirms this Doctrine, but with certain Conditions, thus: "In the Cure of an Anasarca we begin with Venesection, especially if the Disorder has deriv'd its Origin from a Suppression of the Hæmorrhoids, or Menfes." My own Experience, in a great many Instances, has taught me, that in a Leucophlegmatia and Anasarca, if the Patient is plethoric, and if the Disorders have principally drawn their Origin from a sanguineous Asthma, Venesection contributes not a little to the Cure: But, in an Ascites and Tympanitis, I deny that Venesection can be used without Danger, and *Trallian*, towards the End of the above-mention'd Passage, absolutely excludes Phlebotomy in an Ascites and Tympanitis.

As in a Leucophlegmatia and Anasarca, in order to evacuate the serous Colluvies, a drastic Purgative, exhibited in a pretty large Dose, is sometimes necessary; so, in an Ascites, nothing is more dangerous than drastic Medicines, since by their means I have often known a Sphacelus and fatal Inflammation of the Intestines suddenly brought on, as was obvious upon dissecting the Persons after Death: But, with respect to strong Purgatives, I must observe, that they are beneficial in the Beginning of the Disease, so long as there is a sufficient Degree of Strength; and that they ought not to be used too often, but at the Distance of six or seven Days from each other, whilst the Patient's Strength is, in the mean time, to be supported by such Medicines and Aliments, as afford a laudable Juice. But 'tis sometimes more expedient to abstain from these drastic Medicines, such as Gamboge, Elaterium, Coloquintida, and Hellebore, which are of a kind of colliquative and injurious Quality, which a naturally weak and delicate Stomach cannot bear; and, in their stead, rather to use Purgatives, mixed with Emetics, which either in the Form of Pills, or an Infusion, produce the same happy Effect, in a far more safe and easy manner.

As Persons labouring under a scorbutic Dyscrasy of the Humours are highly subject to Dropsies, they are to use such antiscorbutic Medicines as are thought to be possess'd of a specific Virtue against the Dropsy, such as the Roots of wild Horseradish, the Juices of Water-creffes, and Garden-creffes, as also of Scurvy-grass, especially if drank liberally and frequently, either with Whey, or a Decoction of red Beets; for I have often known poor People entirely cured of Dropsies by these simple Medicines, after having daily discharged, by their means, an incredible Quantity of Serum by the urinary Passages.

The Powder and Vinegar of Squills were, by the Ancients, such as *Galen*, *Celsus Aurelianus*, *Celsus*, and others, highly esteem'd for the Cure of this Disorder, especially when accompanied with an Asthma, so violent as to threaten a Suffocation. And I can, from my own Experience, affirm, that I have known many receive unexpected, and almost incredible, Relief from these Medicines; for the penetrating and acrid Salt of this Root, insinuating itself into the Coats of the Stomach, and other nervous Parts, stimulates them to a new Vigour, and brisker Motion, by which means the Circulation of the Blood is greatly assisted. As for the Dose, six or eight Grains may be mixed with the same Quantity of the Roots of Burnet, or Arum, and with the Addition of a few Grains of Nitre, exhibited in a warm Vehicle.

In a Tympanitis the Use of Clysters, prepar'd of carminative Ingredients, is highly beneficial and efficacious. I have, also, observ'd, that in this Disorder, purgative mixed with anodyne Pills, such as the *Pilulæ Starkii*, the *Pilulæ Wildegansii*, and those prepar'd of the Extract of black Hellebore, *Mercurius dulcis*, *Sagapenum*, *Opopanax*, and *Afæcetida*, have produced very valu-

rary and happy Effects. Besides these, some Relief is afforded by an external Anointing of the Abdomen, continued for some Days, with the *Oleum Philosophorum*, or the Oil of Camphire prepar'd with Oil of sweet Almonds.

In an Ascites, when the Viscera are much affected, and few Hopes of Recovery left, gentle Laxatives and Corroboratives are only to be used. This End is answered by the *Pilulæ Polychrestæ*, prepared according to the Directions of *Becher*, interpoling between each Dose of them, a Dose of the aperient Salts. By this Method, unless the Case is absolutely desperate, the miserable Patients are either cured, or at least preserved longer alive: But these Medicines promise more happy Effects, and afford greater Relief, in an Anasarca.

It sometimes happens, that dropical Patients lose large Quantities of Blood, by Hæmorrhages either from the hæmorrhoidal Veins, or the Nose, and Women by the menstrual Discharge, not without a very considerable Danger, and Loss of Strength; in which Case nothing is more absurd and foolish, than the Use of Narcotics, in order to suppress these Hæmorrhages, such as the *Pilulæ de Cynoglossa*, or any other Medicines of a styptic Quality; for by their means the Obstructions of the Viscera, which produce the Defluxions, are increased, and the Strength consequently impaired.

Sometimes a Dropsy succeeds an ill-managed Salivation; in which Case the Disorder is to be treated with Decoctions prepared of *Guaiacum*, *Sassafras*, Root of the sharp pointed Dock, Oak-wood, Quick-silver, and Antimony, tied up in a Bag.

When the Scrotum, either in consequence of an Hydrocele, or a Defluxion of Humours from the Abdomen, becomes so turgid as to render lying in Bed, and Motion of any Kind, highly uneasy, many recommend the Operation of the Paracentesis; which, however, is so little beneficial, that it often produces terrible Disadvantages, and cannot be performed without endangering a succeeding Sphacelus. And as the Humour, contained within the Membranes of the Testicles, is considerably viscid, the Discharge is, of consequence, generally small. In such a Case, 'tis, therefore, more expedient to attempt the Cure by discutient Cataplasms, which often disperse the Humour, and afford great Relief to the Patient.

When Nature, the sovereign and most skilful Physician, opens the Pores of the Skin, either in the Legs or Abdomen, thro' which large Quantities of Serum are continually discharged, and the Patient greatly relieved, we are carefully to endeavour to prevent Corruption; which End may be obtained by the Epithems above recommended frequently applied. Nature, in the mean time, is to be assisted, the Corruption of the internal Parts prevented, and the Strength supported, by corroborative and balsamic Elixirs exhibited internally.

Hippocrates, in the fourth Book of his *Epidemics*, proposes the following Method of curing a Dropsy: "A Person, says he, labouring under a Dropsy, ought to fatigue himself by Exercise, to sweat, to eat Bread, to drink little, and that of White-wine; to sleep very moderately, and to use Purgatives; by which means the Water and Phlegm are evacuated." This Method of Cure is principally proper in a Leucophlegmatia; to which those are highly subject, who have previously been afflicted with chronical Disorders, and violent Hæmorrhages; or who eat and drink excessively. For Patients of this kind *Hippocrates* recommends Exercise, in order to promote Perspiration; as, also, Sweating, in order to carry off a Part of the redundant Serum; and the Eating of Bread, which does not generate a serous, but a sufficiently laudable Chyle. 'Tis, also, proper to abstain from large Quantities of Liquor, both because the Dropsy naturally increases, and the Thirst is not extinguished, unless the Cause of the Disorder is previously removed; and because, in consequence of the Heat augmented by Thirst, the superfluous Moisture is dissipated. There are, also, frequent Instances of Dropsies entirely cured by abstaining from Drink for a whole Year. White-wine provokes Urine, and Sleep increases the Waters; but Hydragogues are, in this Disorder, the most effectual Means of Relief, because they carry off the superfluous Moisture.

As cedematous Tumors, which are, as it were, the Beginning of a Dropsy, are easily generated by Flatulences of the Primæ Viæ, especially in hypochondriac Patients, 'tis, in this Case, expedient not to use Purgatives, but Clysters prepar'd of carminative and corroborating Ingredients, such as Bay and Juniper-berries, Rue, Marjoram, Leaves of dwarf Elder, Flowers of Roman and common Chamomile, and the four carminative Seeds, boil'd either in Water or Milk, with an Addition of a sufficient Quantity of the Oil of Dill and Chamomile. This Piece of Practice I have, also, used with great Success, in Cases where the gummy Matter, being either repell'd or retain'd, had produced Spasms and Flatulences of the Intestines, and threaten'd an approaching Dropsy.

Women are far more subject to Dropsies than Men, especially if the menstrual Discharge is either defective, or suppressed, or absolutely ceases for some time. But this Misfortune principally happens to those Women who lead a

sedentary Life, indulge themselves in Ease and Sleep, or have been long afflicted with excessive Care and Grief. In this Case, Vicessection, Exercise, Travelling, and Change of Air, contribute greatly both to the Prevention and Cure of the Disorder. If these should prove ineffectual, Mineral Waters are to be used, both internally and externally. These are, also, highly efficacious in retarding the hæmorrhoidal Discharges when suppressed.

The Cure of œdematous Swellings of the Feet ought to be very cautiously manag'd; since there are many Instances of fatal Mischances produced by preposterous Measures taken for this Purpose. Thus, for Instance, if they are treated with Astringents and Emplastms, the Swellings indeed subside, but the Serum is translated to more noble Parts; and, when conveyed to the Lungs, produces a suffocative and fatal Cough. 'Tis, therefore, far more safe to cherish these Swellings with warm Cloths, or Bags, fill'd of hot Sand, or Bran, in order to keep up a continual Perspiration. 'Tis, also, expedient to use broad Swaths, beginning at the inferior, and continuing them to the superior Part of the Swelling. Some order Scarification, or, with *Celsus*, a deep Incision; for, says the Author, "An Incision is to be made in the internal Part of the Leg, about four Fingers-breadth, above the Ankle; that the Humour may be copiously discharged for several Days: Incisions must, also, be made in other Parts of the Swelling." But this Method ought to be very cautiously used, and never attempted in an *Ascites*, or in Cases where there is a scorbutic Dyscrasy of the Humours; for a Sphacelus is easily brought on by this means; and the Incision, in consequence of the Laxity of the Flesh, and the Adhæx of the Humours, cannot be consolidated without the greatest Difficulty.

That we may the better ascertain ourselves, with respect to the Event of this Disorder, we must have a due Regard to that beautiful Maxim of *Celsus*, computed in the following Words: " 'Tis expedient to measure the Abdomen daily with a Thread, which is to have the Circumference of the Body marked upon it, and next Day we are to observe, whether the Body is greater or smaller; for, when it becomes less, 'tis a Sign that the Medicines operate duly. 'Tis, also, expedient to measure the Drink and Urine of the Patient; for 'tis a hopeful Sign, of Recovery, when more is discharged by Urine, than is drank." *Frederic Hoffman*

The celebrated *Boerhaave* gives the following Account of Dropsies

When an extravasated aqueous Serum, received into the Cavities of the Body, or becoming stagnant any-where, preternaturally distends the Vessels, the Disorder is call'd a Dropsy.

This Distention may, therefore, happen, in whatever Part the Vessels destin'd for the Conveyance of the Serum are found; that is, either in the whole Habit of the Body, or in any particular Part thereof.

Thus an *Hydrocephalus* may arise from a sordid Collection of Water, either between the external Ineguments of the Head; between these and the Cranium; between the Cranium and the Membranes of the Brain; between these Membranes and their Duplicatures; between these Duplicatures and the Brain; between the Foldings of the Brain; and, lastly, in its Cavities, but yet without producing immediate Death.

This Disorder is easily known, but the last-mentioned Species of it is incurable; whereas the others are either to be cured by gentle Counterirritating, Trepanning, or Puncture, prudently and cautiously practis'd; exhibiting, at the same time, Hydragogues and Corroboratives, internally; or they are to be removed by the external Application of Discrepents.

In a Dropsy of the Thorax, in which the Lymph may be collected from various Parts, the Symptoms are almost the same with those of an *Empyema*. But a due Attention to the antecedent Causes of each Disorder discovers the Differences between them. This is to be cured by the Operation for the *Empyema*, together with the due Use of such Medicines as are opposite to its Cause.

In a Dropsy of the Thorax, sometimes Hydatides, and sometimes dropical Abscesses, are found form'd in the Lungs, by an Accumulation of the Lymph discharg'd from the Vessels, and received into the large Sinuses. This Species of the Disorder is equally difficult to be known and cured; unless, perhaps, the Measures taken to remove other present Symptoms, should, at the same time, fortunately produce a Cure of this Species of Dropsy.

When, by whatever Cause, Lymph is collected, and becomes stagnant, in the anterior, and most conspicuous Part of the *Altera Arteria*, a Species of *Brambucke* often appears. But Authors inform us, that, if this Disorder is carefully adverted to, it is easily known, and most successfully cured by Puncture, Discussion, and such Things as derive the Humours from the Parts affected.

The Follicle of any Gland may be subjected to the like Misfortune, and the Disorder removed by the like Means.

A remarkable Species of Dropsy sometimes affects the *Ovaria* of Women, but most frequently of those who are barren and superannuated. This Disorder is of so latent a Nature, that it is

hardly to be known, till the Body of the Patient is laid open. It is never capable of being cured, but frequently changes into an *Ascites*.

In the Cavity of the Uterus, when its internal Orifice is closed up, there is often so large a Quantity of Water collected, that the whole Abdomen appears as if the Patient labour'd under an *Ascites*. This Species of Disorder is, in like manner, not to be known, without the greatest Difficulty, by reason of the fallacious Signs of Pregnancy, with which it is attended. It is to be cured by a Relaxation of the Orifice of the Uterus, by means of Fomentations, Vapours, and the due Use of uterine Medicines.

When, thro' the whole subcutaneous Fat, this Lymph either becomes stagnant, or is effused, that Species of Dropsy which is called *Anasarca*, *Hyposarca*, and *Leucophlegmatia*, is produced; which sometimes affects the Parts about the Abdomen, and those about the Scrotum.

When this Water is collected either in the Duplicature of the *Peritonæum*, in the Cavity of the *Abdomen*, between the *Peritonæum* and abdominal Viscera, in the dilated Cavities of the Glands, or in the Vessels contained in the Abdomen, the Disorder is call'd *Ascites*; as also *Tympanitis*, when the Abdomen is turgid with rarefied Vapours, arising either from Water, Pus, Ichor, or Air pent up there, and putrefied by the Heat.

A Dropsy of the Testicles is, first, either that of the Scrotum, which is known by the Touch, the conspicuous Pellucidity of the Parts, and the remaining of an Impression made by the Finger; or, secondly, of the Bag, formed by the Production of the *Peritonæum* in a legitimate *Hernia*. This Species of the Disorder happens in a violent *Ascites*, and may be distinguish'd by the preceding Signs of an *Ascites*, or a *Tympanitis*; by its Disappearance, upon its being press'd, upon the Patient's lying on his Back, with his Head and Body lower than the other Parts, and upon the Evacuation of the Water from the Abdomen; by the sudden Increase and Decrease of the Disorder, without any manifest Causes; and, lastly, by the Tumor running out from the Scrotum to the Groin, in the Form of a Hog's-pudding. And, thirdly, a Dropsy of the *Tunica Vaginalis* of the Testicles happens, when the Humours, there secreted, are not reabsorbed by their proper Vessels, but, becoming stagnant, are accumulated and frequently distend the Coat in which they are contained, to an enormous Size; or, if in consequence of a Rupture, or Obstructions of the Vessels, the Humours should be there collected: An Inflammation, Suppuration, and Collection of Ichor, often produce a Disorder, which has much the same Appearance with this Species of Dropsy; this sort of Dropsy is to be known and distinguished by the want of Elasticity in the Tumor, its Resistance, its Hardness, and the Slowness of its Production; as, also, by the Absence of those Symptoms which attend the first and second Species of Dropsies of the Testicles; by the round, or, at least, the oval Figure of the Tumor; by the apparent Pellucidity, when, upon straitening the Scrotum, the Bag of collected Matter, exposed to a lighted Candle, appears clear and transparent. But if, besides these, there should be such a Tumor between the nervous Coat and the Substance of the Testicle, or even in the Substance of the Testicle, the Disorder can hardly be so accurately inspected, as that it may be easily distinguished from the preceding Species, nor perhaps is there any other Cure for it than Extirpation. The Disorders of this Kind are called *Hydroceles*. See *HERNIA*.

All the Disorders of this Kind are produced, first, by every Cause which is capable of so confining the Serum, that it cannot return into the Veins, but stagnates in the distended Vessels: Or, secondly, by every Cause which so ruptures the Vessels, that the Serum is discharged within the slender Membranes: Or, thirdly, by every Cause which so obstructs the Vessels which convey the Fluids from the Cavities, or so little moves the Humours contained in them, that they are neither exhaled nor reabsorbed.

The Causes of this Kind are principally observ'd to be an hereditary and natural Disposition; the sudden drinking of too large Quantities of cold Liquors, which are neither discharged by Vomit, Stool, Sweat, nor Urine, excited by Heat or Motion; acute Diseases, either accompanied with an insatiable Thirst, and excessive Drinking, or without these Circumstances; a lenteric Dysentery long protracted; all obstinate Obstructions of the Viscera, such as Scirrhuses of the Liver, Spleen, Pancreas, Mesentery, Kidneys, Uterus, and Intestines; the Jaundice, violent and long protracted quartan Fevers; Lienteries; Diarrhoeas, Dysenteries of long standing; the *Cœliac Passion*; *Empyemas*; a Spitting of Blood; the Gout; excessive Evacuations of any Kind, and especially of the arterial Blood; drinking of acrid and fermented Liquors; viscid Aliments, and such as are of difficult Digestion; a considerable Number of large Hydatides, hanging pendulous in the Cavity of the Abdomen; and many other Disorders of a similar Nature, such as Melancholy, the Scurvy, and some others.

The Effects and Progress of this Disease are generally as follows: The Feet become tumid, especially towards the Evening; and this Tumor is gradually increased and augmented; then a daily

daily increasing Tumor appears in the Abdomen. In a *Tympanitis* the distended Abdomen sounds, when struck; in an *Ascites*, when the Water flows freely in the Cavity of the Abdomen, the Noise of fluctuating Water is heard, upon moving the Body. But in that Species of *Ascites*, where the Waters are included in their proper Vesicles, this Symptom does not always happen, and consequently is not to be depended on. Add to these a Difficulty of breathing, Thirst, a Sensation of Weight, Torpor, Costiveness; a small Discharge of Urine, a slow Fever, no Evacuation by Sweat, a Degree of Leanness and Extenuation in the general Habit, proportion'd to the Largeness of the Tumor, in the particular Part affected: Then appears an *Anasarca* of the Thighs, *Scrotum*, and abdominal Skin; Hydatides; an Acrimony of the Water become stagnant and putrefied, in consequence of the Heat and Closeness of the Part in which it is confined; Ulcers, Gangrenes, Hemorrhages from the Nose, an Exomphalus, a Sphacelus of the Viscera, and, at last, the Death of the Patient.

In the Cure of a Dropsy, the following Intentions are to be pursued:

First, To procure a due Fluidity and Motion to the Lymph, whether it is Water or Serum, of the bilious, ichorous, or bloody Kind.

Secondly, To evacuate the Waters already discharged into the Cavities of the Body.

Thirdly, To remove the Weakness of the Viscera, whether this Weakness is the Cause, or the Effect, of the Dropsy.

The Fluidity of the Lymph is procured, by removing those Causes which prevent such a Fluidity; which are, first, The too languid Force of the vital Powers subservient to Circulation. Secondly, The Compression, Rupture, or Obstruction, of the Vessels. And, thirdly, The excessive and preternatural Viscidity of the Fluids.

With respect to the too languid Force of the vital Powers subservient to Circulation; this is most commodiously remov'd by, what we call, *Cardiacs*, *Corroboratives*, and Medicines of a stimulating Quality; which, if the Patient is not afflicted with a violent Thirst, are to consist of aromatic, saline, oleous, and hot Substances; which may be easily prepar'd, in the various Forms of Electuaries, Mixtures, medicated Wines, medicated Ales, Pills, Decoctions, Syrups, or Lozenges. Thus, for Instance,

Take of the Roots of Masterwort, both Species of Birthwort, Zedoary, and Mountain Hartwort, each one Ounce; of Ginger, six Drams; of the Flowers of the lesser Centaury, two Ounces; of Rosemary-flowers, one Ounce; of Hedge-hyssop, four Drams; of Elder and Juniper-berries, each half an Ounce; of Thyme, Mother of Thyme, and *Syrian Marum*, each one Ounce; of the Seeds of Wormwood, Tansey, and Wormseed, each one Ounce: Reduce all to a fine Powder; then take of this Powder, six Ounces; and of pure *French Wine*, four Pints: Make into a medicated Wine, of which let the Patient take two Ounces, four times a Day, upon an empty Stomach, using, at the same time, a proper Regimen.

Or,

Take of the above prescribed Powder, two Ounces; Conserve of Rosemary-flowers, one Ounce; and of *Fernelius's Syrup of Mugwort*, a sufficient Quantity for making a Conserve, of which half a Dram is to be taken every fourth Hour.

Or,

Take of the preceding Powder, twelve Ounces; and of strong Ale, a proper Quantity: Make into a medicated Ale, for common Use.

Or,

Take of the same Powder, four Drams; and of the best White-wine, eight Ounces: Make into an Infusion, of which let the Patient drink one Ounce every two Hours.

This Intention is, also, answer'd by Elixir Proprietatis, volatile, oleous, and aromatic Salts; volatile, acrid, and oleous Spirits, of the aromatic, cephalic, and stomachic Kind; as, also, those appropriated to Disorders of the Uterus.

If the Thirst is intense, the Cause of a hot Kind, and the Disorder accompanied with a hot Fever, which frequently happens, the Thirst is remov'd by refreshing Cardiacs, grateful Acids, and Liquors gently aromatic. Thus, for Instance,

Take of the distilled Oils of Cinnamon, Citron and Orange-peel, each three Drops; of the Oils of Lavender-flowers, and of Juniper, each two Drops; and of Sugar, six Drams: Make an *Eleosaccharum*, with which mix of the Robs of Elder and Juniper, each three Ounces; of the Spirit of Salt, one Dram, of the distill'd Waters of Cinnamon, Citron, and Orange-peel, each two Ounces; and of the di-

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still'd Water of Mint, ten Ounces: Of this Preparation let the Patient take one Ounce every two Hours.

Or,

Take of the Juices expressed from the cut and recent Herbs of Fumitory, Succory, Dandelion, and Sorrel, each one Pint; and of Cream of Tartar, half a Pound. Over a gentle Fire, boil, to a Consumption of Half; then, with every ten Ounces of this Decoction, when depurated, mix ten Ounces of Elder-rob: And, of this Preparation, let the Patient take half an Ounce every two Hours.

Or,

Take of dulcified Spirit of Nitre, four Drams; of the Spirit of Scurvy-grass, six Drams; of the Syrup of Succory, with Rhubarb, and the Syrup of the Five aperient Roots, each one Ounce; and of *Rhenish Wine*, one Pint: Mix all together, and of this Preparation let the Patient take an Ounce every two Hours.

In both Cases, Frictions, Motion, and Heat, are proper.

When the Vessels are compressed, ruptured, or obstructed, the Cause producing such Effects is to be investigated, and, if possible, remov'd; or this Cause may be often corrected by Mineral Waters.

The excessive Viscidity of the Fluids may be remov'd, either in a hot or cold Dropsy; first, By the Medicines already prescribed: Secondly, By alkaline Substances, especially Salts, both of the volatile, and, principally, of the fixed Kind; and, thirdly, By chymical Preparations of Mercury, Antimony, and Copper, duly prepar'd, and judiciously exhibited: Thus, for Instance,

Take of Turpeth Mineral, half a Grain; and of white Ginger, ten Grains: Make into a Powder, to be taken every other Morning, in the Pulp of a roasted Apple.

Or,

Take of red precipitate Mercury, one Grain; and of Nutmeg, six Grains: To be made into a Powder, for the same Intentions with the former.

Or,

Take of Mercurius sublimatus dulcis, seven Grains; and of Winter's Cinnamon, eight Grains: Reduce to a Powder, to be applied to the same Uses with the former.

Or,

Take of emetic Tartar, half a Grain; and of an *Eleosaccharum* of the Oil of Citrons, six Grains: Make into a Powder, to be taken every third Day.

Or,

Take of the mild Emetic, prepar'd by Detonation, from Antimony, two Parts, and Nitre, five Parts, four Grains: Reduce to a Powder, to be taken every Morning.

Or,

Take of the Filings of Copper, ten Grains; and of Sal volatile Oleosum, six Drams: Make into a Tincture, of which let the Patient take twelve Drops, three times a Day, on an empty Stomach, with half an Ounce of the Syrup of the Five aperient Roots.

The Waters, collected in the Cavities of the Body, are to be evacuated, first, By the *Paracentesis*: Secondly, By procuring new Outlets for it: Thirdly, By Urine: Fourthly, By Vomit: Fifthly, By Purging: And, sixthly, By Dissipation.

If the Cause of that Species of Dropsy, called *Ascites*, is recent, and the Disease suddenly produc'd, by some external Cause; and if the Strength is entire, the Patient young, the Viscera in good Order, and not injured by any other Disease, and the Water not putrid by its long Stagnation in those Parts, the Operation of the *Paracentesis* is forthwith to be perform'd.

This Operation is to be perform'd three Inches below the Navel, and as many from the Linea alba: But this Measure is to be estimated, as if the Body was sound, and the Abdomen not distended. The Operation is to be perform'd in the Side opposite to the Source of the Dropsy, by making a Puncture, with a proper Instrument, lodged in a *Cannula*, and again drawn out of it: From this *Cannula* a small Quantity of Water is to be evacuated, twice a Day, for, at least, fifteen Days, using, at the same time, the Medicines already prescrib'd: Or, according to a later Method, the Abdomen is, by means of Swaths, to be compressed, in proportion to the Quantity of Water evacuated, lest the lax and pendulous Vessels and Viscera should, after the Evacuations, fluctuate in the empty Abdomen.

If the Conditions, enumerated in the preceding Paragraph, are wanting, or if the State of the Patient is quite opposite, the *Paracentesis* accelerates his Death.

Outlets made by the actual Caution, Caustics, Vesicatories, Lancets, and Setons, in a fleshy, but dependent Part, are highly beneficial; especially if the Nature of the Disease admits of their being kept open.

These Operations only take place when the Water is contain'd in the Cellular Membrane, without being effused into the Abdomen; and then, if the Viscera are sound, we may follow the Example of *Hippocrates*, and the *Egyptians*, and of the modern *Chinese*, and apply an actual Caution below the Knee, and then mollify the Eschar with Butter, that it may fall off, and give Vent to the Water. *V. Prosper Alpinus de Med. Egypt.*

As the Cellular Membrane, all over the Body, communicates, this Practice seems to be very rational. Care, however, must be taken to prevent a Mortification, by proper Bandages to the subsiding Parts; warm, aromatic, and lixivious Fomentations, and Dressings of warm Balsams applied to the Ulcer, or Emissary: And this must be done, when an artificial Emissary is made by any means whatever.

As there are many Instances of the Evacuation of the Waters by Urine, we are, when we discover such a Tendency in Nature, to attempt this Method, by the Use of specific, urinous, fixed, and compound Salts, animal Salts, vitriolated Salts, dissolved Metals, and Specifics for Disorders of the Kidneys.

Since, by Vomits, the viscid Humours are resolved, the obstructing Matter shaken, and the stagnant Fluids expelled; they are, therefore, singularly beneficial in this Disorder.

But the Vomits, for this Purpose, must be drastic, frequently repeated, and exhibited at small Intervals of Time: Thus, for Instance,

Take of the common emetic Wine, two Ounces and an half for a Dose.

Of emetic Tartar, six Grains for a Dose.

Of Turpeth Mineral, seven Grains for a Dose.

Of the recent Juice expressed from the middle Bark of Elder, one Ounce; and of the Syrup of Violets, half an Ounce; for a Dose.

Of the Leaves of the *Soldanella Marina*, one Ounce for a Dose.

Of Elaterium, four Grains; and of the cathartic Syrup of Buckthorn-berries, one Ounce: To be made up for a Dose.

These Medicines are not only emetic, but, also, generally purge pretty briskly; and sometimes promote a *Diuresis*.

The Evacuation of the Serum by Stool is obtain'd by the liberal and frequently repeated Use of drastic Purgatives, exhibited in various, but, especially, in liquid Forms: Thus, for Instance,

Take of the Resins of Jalap and Scammony, each one Dram; of the Powder of Sena-leaves, and the bruised Seeds of ballard Saffron, each four Drams; and of rectified Spirit of Wine, one Pint: Make a Tincture; with which mix four Ounces of the solutive Syrup of Roses, with Sena: Of this let the Patient take one Ounce in the Morning.

Or,

Take of the cathartic Silver of *Boyle*, and of Crums of Bread, each four Grains: Mix up into a Mass, of which make Pills, consisting of two Grains each: Of these let the Patient take one, every Half-hour, till the Purging begins.

The Waters are dissipated by the Heat either of a Fire, a Stove, Sand, the Sun, Salt, or Dung; since, by means of these, a *Diaphoresis*, or a Sweat, are excited.

But the Waters are, in a particular manner, dissipated by a rigid Abstinence from Drink, and eating Biscuit with a little Salt, and a very small Quantity of oleous Wine.

The Weakness of the Viscera is to be remov'd by chalybeate Preparations, Steel in Substance, and Corroboratives of a gently astringent Quality, exhibited in due Doses, and at proper Times; as, also, by dry Aliments, Exercise, and Wine which is strong, old, and astringent: Thus, for Instance,

Take of the recent Filings of Steel, before they are rusted, two Ounces; of *Peruvian* Bark, and *Winter's* Bark, each two Ounces; of dried Rhubarb, half an Ounce; and of the best *Rhenish* Wine, two Pints: Make into a medicated Wine, of which the Patient is to take two Ounces, thrice a Day, upon an empty Stomach.

A *Tympanitis* is to be cured by the same means, and in the same manner, if it draws its Origin from the rarefied Vapours,

exhaling from the extravasated and putrefied Humours; for, in this Case, the Cause of the Disorder being remov'd, the Disease must of course be cured: But if it arises from the Air falling down into the Cavities, through the perforated Membranes of the putrefied Intestines, and not being able to return, but becoming rarefied by the Heat; in this Case, by the concurring Influence of the Air, all the Parts soon become putrefied; and the Disorder, when proceeding from this Cause, is almost always incurable: Hence a dry Dropsy is accounted far more incurable than one of the moist Kind. Puncture frequently affords Relief, but rarely produces a perfect Cure.

The Species of Hydrocele, first mention'd, is cured, first, if the Anasarca, whose Effect it is, is cured. Secondly, By the Heat, either of a Fire, a Stove, Sand, the Sun, Salt, or Dung.

Take of the best Roots of Bryony, and Jalap, of the Leaves of Rue, Wormseed, and the Garden Artichoke, of the Leaves of Melilot, and the lesser Centaury, and of the Bulbs of Onions and Garlick, each two Ounces: Boil to the Consistence of a Cataplasm, with a sufficient Quantity of Water; adding, towards the End, of Galbanum, dissolved with the Yolk of an Egg, two Ounces; of the Meal of Linseed, one Ounce; of the Oil of Linseed, four Drams; and of Sal Ammoniac, four Drams: Mix all together for a Cataplasm to be applied to the Part affected.

Or,

Take of Venice Soap, four Drams; and of the *Spiritus Vini theriacalis*, twelve Ounces: Mix carefully for a Fomentation, to be applied with Woollen Cloths.

Or,

Take a sufficient Quantity of decrepitated, highly dry, hot, and finely triturated Sea-salt: This, contained in a thin Linen Cloth, is to be applied, and renew'd when it becomes moist.

Or,

Take of Benzoin, Olibanum, Sarcocolla, and the Resin of Guaiacum, each half an Ounce; of Camphire, half a Dram; of Mastich, one Ounce; and of Sal Ammoniac, two Scruples: Reduce to a Powder, to the Steam of which, when kindled, the naked Scrotum is to be exposed; after which Cloths, render'd hot with this Steam, are to be applied.

Thirdly, By strong Discutients, in Conjunction with Corroboratives, apply'd to the Scrotum, and by external Heat continually excited, in order to induce a greater Motion, and Efficacy. The second Species of Hydrocele mention'd, is most commodiously cured, first, by extirpating the Hernia; secondly, by removing the Matter of the Ascites, and intercepting the Source, from which it flow'd; and, thirdly, by Machines adapted to compress the Part from which the Matter is discharg'd, as in Hernias. But this Species of Dropsy, when once form'd, is rarely perfectly cured. The last Species of Hydrocele is cur'd, first, by the often repeated Exhibition of drastic Hydragogues, and the Use of drying Aliments; secondly, by the most efficacious Discutients and Corroboratives; thirdly, by the Paracentesis of the Scrotum; and, fourthly, by Caustics and Suppuration. See HERNIA.

From what has been said, it sufficiently appears, that, in the Cure of a Dropsy, greater Difficulty arises from the Nature of the stagnant and putrefied Water, than from the original Causes of the Disorder; for limpid Water may be absorb'd by the bibulous Veins, and reconvey'd into the Circulation; which cannot happen, if the Humours effus'd, are viscid, tenacious, and putrefy'd.

From what has been said, it is, also, obvious, why, after an Evacuation of the Waters, a Gangrene of the Parts, which floated in them, is accelerated; for the Pressure of the Water supports the Texture of the macerated and weaken'd Parts, which collapse, and tend to Putrefaction, when this Pressure is remov'd:

Why, upon a sudden Evacuation of the Waters from the Thorax, or Abdomen, Death, or a violent Deliquium, ensue; for, the Pressure of the Water being taken from the Arteries, they become larger, and the Blood rushes into them suddenly, deserting, at the same time, the Brain:

Why dropical Patients are afflicted with so insatiable a Thirst; what this Thirst denotes; why Acids are often so beneficial in the Cure of a Dropsy; for this Thirst is excited by a Fever, which is rais'd by an alkaline Putrefaction of the stagnating Juices: This is a very bad Symptom, and must be cur'd by Acids, which prevent Putrefaction:

Why, upon the Evacuation of a large Quantity of Water, at one time, by means of drastic Evacuants, the Tumor of the Abdomen appears the same, or rather larger, and why, by the Exhibition of Opium, this Tumor subsides; for this Swelling proceeds from Flatulences excited by the violent Operation of the Evacuants; and, when the Agitation of the Humours is taken off by Opium, the Tumor subsides. And hence we learn, why Bandages are so beneficial in this Disorder, and how far.

The

Experience assures us, that a Paracentesis of the Abdomen is useless in the Tympanitis, though its Success is fully confirmed in the Ascites, by Instances of Persons recovered from that Disorder, by an accidental Perforation, through which the Water has discharged itself, upon which the Patients, beyond all Expectation, have been restored. The Encouragement, therefore, given to this Operation, is founded upon solid Reasons: Though, to confess the Truth, it affords but a temporary Relief; for either Delay, or the infirm State of the Patient, or the Corruption of the Viscera, generally bring on Death; but in young robust Persons, lately attacked by the Distemper, it may be performed with Success. For this Reason, if a proper Diet, and Course of Physic, do not, in some Weeks, alleviate the Disease, I advise an immediate Recourse to Tapping, before the Patient's Strength is exhausted, or his Viscera corrupted by the morbid Humours. On the contrary, when it is attended with a Scirrhus, internal Abscess, or Consumption, it seems altogether proper to refrain from the Operation. The same Rule should be observed in those Dropsies, which come on all at once; for there we may be sure some large lymphatic Vessel is burst. As for the Wound itself, it is neither dangerous nor troublesome, since it is but small, and made in a fleshy Part.

For the Discovery of Water in the Abdomen, the Surgeon must apply one Hand to each Side of the Patient's Belly, while he sits or stands; and, by shaking it, he will perceive a Fluctuation of the Water, from Side to Side; if not, the Lymph is not extravasated into the Cavity of the Abdomen, and consequently a Paracentesis is unnecessary.

There are several different Methods of performing this Operation. The first, and most modern, is this: The Patient is laid on the Side of a Bed, and the triangular Needle, call'd the *Trocar*, (*Tab. XLV. Fig. 1.*) is thrust into his Belly, about eight Fingers-breadth from the Navel, or in the Middle between the Angle of the Os Ilii and the Navel; then this Instrument (*Fig. 2.*) is extracted out of the Cannula (*Fig. 3.*), which is left in the Wound, till as much Water is drawn off, as the Strength will permit; which, if he does not grow faint, may be the whole Quantity. And, to prevent this Languor, an Assistant should, with his Hands, press each Side of the Abdomen, or a Swathe of broad Linen, perforated in the Middle (*Tab. XXVI. Fig. 8.*), should be carry'd round the Body, and gradually tightened, as in longitudinal Wounds of the Abdomen, till all the Water is evacuated; after which a Bandage must be apply'd, for this frequently enables the Patient to walk about immediately after the Operation; and without it, as *Hippocrates* observes, a plentiful Discharge of Water, at one Opening, is always attended with Faintness, and often with Death. Many, therefore, advise an Evacuation proportionable to the Strength of the Patient; after which, they extract the Tube, and, as the Wound is but small, almost closing of itself, dress it with two square Compresses, a Plaster and Bandage; next Day they repeat the Operation on the other Side, and, on the third, make another Aperture about two Fingers-breadth above the first; and so proceed, from Side to Side, alternately, till the Patient recovers or dies. They make fresh Wounds, to prevent an Inflammation, which is destructive to dropical Subjects. In the mean time, the Patient should be assisted with a proper Regimen, and Course of Physic. As for the Posture, he was formerly seated on a Chair or Bed; but the Moderns, after *Petit*, lay him on one Side of the Bed; for thus the Needle is more commodiously introduced into the lateral and lower Part of the Belly, the Water more perfectly discharged, and the Patient less subject to faint. Some, also, draw off the whole Quantity, at the first Tapping, and repeat it upon a Return of the Disorder; but, where the Patient is infirm, I must prefer the other Method, as the safest. *Petit* approves of the Instrument, whose Cannula has a Slit in it (*Tab. XLV. Fig. a a*), as most convenient for discharging the Water; but, what Instrument soever the Operator chuses, he should lubricate the End with Oil, for the more free Admission of it into the Abdomen.

The Ancients, first perforating the Skin with a Caustic, thrust a Knife, about a third Part of an Inch broad, into one Side of the Abdomen, about four Fingers-breadth below the Navel; and then introducing a Tube of Lead, Copper, or Silver, discharged as much Water, as the Patient's Strength would permit; this Instrument was about three or four Fingers-breadth long, (*Tab. XXIII. Fig. Q S*) either with the Edges bent outwards, or with a Rim, to prevent its slipping quite into the Abdomen.

After a sufficient Evacuation, the Tube remaining there, the Orifice of the Tube was stop'd with Lint, or a Cork. Over this they laid a sticking Plaster, thick Compresses and Bandage, with the Napkin and Scapulary, as a Security against any involuntary Emission. Next Day they repeated the Discharge, and continued this Method till the Patient recover'd, or died. But the modern Practice is certainly preferable; for the Introduction of the Cannula, after extracting the Knife, is a Task of no small Difficulty; and leaving it in the Wound must unavoidably excite an Inflammation, and other bad Symptoms. These Inconveniencies induced *Barbers* to contrive a hollow kind of Needle, of Sil-

ver, with a Foramen on each Side, as in *Tab. XLV. Fig. r.* and *3.* to perforate the Abdomen, and discharge the Water, at the same time; but as this sharp-pointed Instrument, continuing in the Abdomen, might injure the Intestines, the Moderns have, more judiciously, substituted, in the room of it, the triangular Perforator, and Cannula, now call'd *Trocar*.

Though the Perforator is sharp-pointed, there is no Danger of wounding the Intestines; because the intervening Water keeps them at a considerable Distance from the Instrument; and, was it to touch them, their Lubricity would preserve them from any great Injury. If the Tube should be obstructed, the Insertion of a Probe will remove the Obstacle. Sometimes the Navel is surprisingly distended in hydropical Subjects. See *Hildanus, Obs. 47. Cent. 1.* and *Purman's Chirurg. curios. p. 330.* In this Case, some advise a Perforation of the Part; and are encouraged to it by reading of a Patient, cur'd by a spontaneous Rupture there; though it is generally incommodious; for, besides the Difficulty of discharging all the Humour, this Wound scarcely ever heals.

Sharp, in his Treatise on Chirurgical Observations, says, that, if the Navel protuberates, you may make a small Puncture with a Lancer through the Skin, and the Waters will be readily voided by that Orifice, without any Danger of an Hernia succeeding, as is apprehended by many Writers.

Though a Paracentesis of the Abdomen does not always cure a Dropsy, it, at least, eases the Patient of the Oppression, Difficulty of Breathing, and other Symptoms, which hinder his Sleeping, and oblige him to sit up both Day and Night, so that the Operation is absolutely necessary. Instances of its Success may be seen in *Volteri Schola Obstetricia, p. 63.* *Pechlini Obs. 62.* *Nuckei Adenograph. p. 122.* *Brunner, in Ephem. Nat. cur. Dec. 2. An. 8.* *Simbaldi Meth. parva. Saviardi Obs. 119.* *Memoires de l'Academie Royale des Sciences, anno 1703.* *Dionis, Chirurg. Helvetii Lib. de Sanguinis Profluviis, p. 79.* *Act. Med. Berolinens. vol. 9. & 10.* *Heister. Institut. Chirurg.*

Sharp says, that, during the Evacuation, the Assistants must keep prelling on each Side of the Abdomen, with a Force equal to that of the Waters before contain'd there; for, by neglecting this Rule, the Patient will be subject to fall into Faintings, from the Weight on the great Vessels of the Abdomen being taken off, and the sinking of the Diaphragm succeeding; in consequence of which, more Blood flowing into the inferior Vessels than usual, leaves the superior ones of a sudden too empty, and thus interrupts the regular Progress of the Circulation. To obviate this Inconvenience, the Compression must not only be made with the Hands, during the Operation, but must be afterwards continued by swathing the Abdomen with a Roller of Flannel, about eight Yards long, and five Inches broad, beginning at the Bottom of the Belly, so that the Intestines may be bore up against the Diaphragm. You may change the Roller every Day, till the third or fourth Day, by which time the several Parts will have acquir'd their due Tone. For the Dressing, a Piece of dry Lint and Plaster suffice; but, between the Skin and Roller, it may be proper to lay a double Flannel, a Foot square, dip't in Brandy, or Spirits of Wine. *Sharp.*

The Place where chirurgical Writers determine the Perforation to be made with the *Trocar*, in tapping the Belly, is four or five Inches below, and as much to the Side of, the Navel; or the Point where a Line, at that Distance from, and parallel to the Linea alba, would be intersected by another Line drawn perpendicular to the Linea alba at four or five Inches below the Navel. If this Point is supposed to be determin'd on a healthy Man, of middle Growth and Stature, it certainly is a very safe and convenient Place for making the Puncture; for it is sufficiently dependent, especially when the Person lies on the same Side. There are no thick fleshy Bellies of Muscles to pierce, nor are the Muscles entirely tendinous, but are become tendineo-carnous; and at this Place there are no large Blood-vessels or Nerves in hazard of being wounded: All which Advantages no other Part of the Abdomen has. But, then, this Rule of measuring four or five Inches is certainly not to be apply'd to hydropic People, as being very precarious, and, consequently, very often dangerous; for, though the Distance is taken in full Measure, when the Abdomen is distended, yet, when the Belly subsides, the Perforation will be found nearer to the Navel, in proportion to the Degree of Distention; as, for Instance, Suppose that the anterior Part of the Abdomen is distended by Water, to double its natural Length and Wideness; that when the Water is drawn off, this Cavity is contracted to its natural Size; and that all the Parts have been equally stretched, and are again equally contracted; then, though four Inches were taken both Ways from the Navel, it is plain, that, after the Contraction, the Distance each Way will be but two Inches; so that the Perforation is not depending enough, the Rectus Muscle is pierced, and, probably, some of the larger Branches of the epigastric Vessels are wounded. What undoubtedly is meant, is to make a proportionable Allowance for the Quantity of Distention, and some Authors have said as much; but none of them, except *Garengot*, have laid down any other general Rule for chusing the Place of Tapping: He, indeed, says, that the Puncture

Cure ought to be made in the Middle, between the Navel and the Spine of the Os Ilium; but as this Spine is of a considerable Extent, his Rule is much too uncertain, especially considering, that the precise Point to be pierced can be determin'd in all Subjects, and different Degrees of Distention, which the Belly suffers in Dropsies, by only remarking, that, in a sound State, a Point, four Inches below, and to a Side of, the Navel, is the Middle betwixt the Navel and anterior Spinal Process of the Os Ilium; and that the muscular Parts of the Abdomen are near equally stretch'd in the Hydrops Ascites apertus; whence it follows, that this middle Point between the Navel and this Spinal Process is invariable, or nearly so; and, therefore, is the Part where the Perforation ought always to be made in Tapping.

Till of late, that Dr. Mead, by pressing on the Abdomen, with an Assistant's Hands, while the Water of the Hydrops Ascites was evacuated, discover'd the sudden taking off the Pressure from the descending Aorta, in such Subjects as scarce have Blood enough to fill the Vessels of the Body, to be the true Reason of the Syncope, Inflammation, and great Distention of the Vessels of the abdominal Bowels, and, particularly, of the Intestines, Surgeons were very careful to draw off a small Quantity of Water at once; and rather chose to repeat the Operation more frequently, though they were sensible, at the same time, of several Disadvantages attending their Method; for, besides the Pain and Uneasiness to the Patient, and the Danger Orifices, made any-where in the Teguments of hydropic People, are in of mortifying, the Guts still lose more of their Tone by soaking longer in the Water, the Air being necessarily admitted by the Cannula into the Cavity of the Abdomen, is liable sometimes to rarefy, distend the Belly, and form a Tympanitis; and never misses to hasten the Putrefaction of the Water, from which a Train of various bad Symptoms must follow.

All these evil Consequences might, then, be prevented by drawing off all the Water at once, and preserving the Pressure still on the Belly, which can be supplied by Art, but ought, for greater Safety, to be done gradually and equally, as the Water runs out; which neither the Pressing with Hands, in time of the Operation, and applying a Bandage afterwards, which is the Practice of England, nor the Swathing with a Towel immediately afterwards, as I have seen done in the Hospitals at Paris, are rightly calculated for; and, therefore, these several Years, I have always us'd a Belt made of fine Flannel, cover'd with strong Linen. The Body of the Belt is only so wide as to reach from the Spine of the one Os Ilium to that of the other; to one End of this Body strong Tape, or Ribbands, are sowed at a small Distance from each other, and to the other End as many well-polish'd Buckles are put: Near the inferior Side of the Belt, and at a small Distance from each End, a little Window is cut, which can be shut with two Buckles and Straps.

When the Operation of the Paracentesis is to be perform'd, I mark, with Ink, the middle Point between the Navel and Extremity of the Spine of the Os Ilium of the Side which I design to pierce; then I apply the Belt, with the Flannel-side next the Skin, well-charg'd with Fumes of Benzoin, Mastic, and such other drying and corroborating Medicines, taking care that the Point of the Skin, formerly mark'd with Ink, shall be in the Middle of one of the Windows, or Openings of the Belt; after which a Linen Compress is put on the Back, to defend it from being hurt by the Buckles: And, lastly, the Straps, or Tapes, are put through the Buckles, and drawn a little tight, by which the Water is press'd in greater Quantity to the Part of the Abdomen, where there is the least Resistance, which will be the Part uncover'd by the Belt, or the open Window; and, therefore, that Part becomes more prominent and tense, which facilitates the Perforation, and makes a greater Distance there between the containing Parts and Viscera, and, consequently, makes less Danger of the Guts being wounded by the Point of the Trocar.

Gradually as the Water is drawn off, the Straps are pull'd tighter; and, if the Patient will be ingenuous, the same Pressure can be kept on the Abdomen, all the time of the Operation, and after the entire Evacuation, as was on it before one Drop of the Water was taken away; because the Operator has a certain Gauge, the Breathing, to judge by; for the Difficulty of Breathing, which hydropic People labour under, being wholly the Effect of the Water pressing the Diaphragm upwards, and thereby straitening the Lungs, any Force equal to that of the Water, pressing all the Parts of the Abdomen equally, will have the same Effect: For this Reason the Patient must, from time to time, acquaint the Surgeon, if he is sensible of his Breathing more freely, when the Straps are to be drawn tighter, till the Patient judges the Difficulty of Breathing to be the same as it was before. In this Way I have drawn off, more than once, from very feeble emaciated Patients, sixteen Scots Pints, or sixty-four Pounds of Water at once, without the least Faintness or Uneasiness.

After all the Water is evacuated, which is greatly assisted by the Pressure, a Pledget and Plaster are to be put on the Orifice

from which the Cannula was taken, in the common way; and a Compress being applied over these, the Window is to be shut upon this, and brought to the same Tightness with the rest of the Band. At Pleasure this Window can be opened and shut, and the Wound can be dressed; and the whole Belt may, as Occasion requires, be slackened or straitened.

The Belt just now described is what I have only made use of hitherto; but have sometimes been sensible of Inconveniences, in applying it when the Belly is very greatly distended; for, in such a Case, the Ossa innominata keep the Belt from being right applied to the lower Part of the Belly, which is stretched down over the Patient's Thighs; the superior Part of the Abdomen, being considerably smaller than the lower, is not sufficiently straitened; and, after the Operation is finished, the Belt is liable to be gathered all in Wrinkles round the Loins, especially if the Patient is restless and careless.

To prevent these Inconveniences, I think a farther Improvement may be made to the Belt. Let a slanting Flap be added to its inferior Edge; from which let two Straps, with Buckles at their Extremities, go out to pass between the Patient's Thighs, and to be fastened to other Straps, which come out from the upper Edge of the circular Band, or to a scapular Bandage, brought over the Patient's Shoulders: It is evident, that the Flap will compress the hypogastric Region, which the Belt could not reach; and that the additional Straps, being tightly drawn, will keep the circular Band stretch'd at its full Breadth.

Monro, in *Medical Essays*, vol. 1. p. 214. where there is a Figure of this Belt.

HYDROPYRETOS, ὑδροπύρετος, from ὕδωρ, Water, and πυρετός, a Fever. A kind of malignant sweating colliquative Fever. *Castellus*. According to *Blancard*, it is the same with the *Sudor Anglicus*.

HYDROROSATON, ὑδρορροσάτον, from ὕδωρ, Water, and ῥόδον, a Rose, is a Drink made of Water, Honey, and the Juice of Roses, mix'd, according to *Ægineta*, Lib. 7. Cap. 15. in the Proportion of four Pounds of Roses, freed from the Ungues or Bottoms, with five Pints of Water, and two Pints of Honey.

HYDRORRHODINON, ὑδρορρόδιον, from ὕδωρ, Water, and ῥόδον, a Rose, is Water mix'd with Oil of Roses; it is cooling, and provokes Vomiting, and was given, by *Galen*, to those who had taken Poison.

HYDROSACCHARUM, ὑδροσάκχαρον, from ὕδωρ, Water, and σάκχαρον, Sugar, is a Mixture of Water and Sugar, answering to Hydromeli, by changing Honey for Sugar. *Castellus*.

HYDROSARCA, ὑδροσάρκα, from ὕδωρ, Water, and σὰρξ, Flesh. A Tumor, or Abscess, produced of Water and Flesh. *M. A. Severinus*.

HYDROSARCOCELE, ὑδροσαρκοκύλη, from ὕδωρ, Water, σὰρξ, Flesh, and κύλη, an Hernia. A Species of HERNIA; which see.

HYDROSELINUM, ὑδροσέλιον, from ὕδωρ, Water, and σέλιον, Parsley. Water-parsley. *Blancard*.

HYDROTICUS, ὑδροτικός, from ὕδωρ, Water, is us'd by some Moderns in the same Sense as HYDRAGOGUS; which see.

HYDRUS, HYDRA, ὕδρξ, ὕδρεξ, from ὕδωρ, Water. A Water-serpent, call'd by the *Latins*, *Natrix*, and very venomous.

The Bite of this Serpent produces a large livid Ulcer, whence distils much black fetid Sanies, as from an Ulcer of the phagedenic Kind. The Cure requires a long Time, and is perform'd with much Difficulty.

To the Wound apply Origanum, bruise'd, and work'd in Water; or a Lixivium of Oak-ashes, mix'd with Oil, or Barley-flour made up with Honey. Inward Remedies are, two Drams of Aristolochia, in diluted Wine; or two Cyathi of Posca; after these may be taken the Juice of Horehound, or its Decoction in Wine, or wild Nasturtium, or the Seed or Flower of *Hasta regia*, or the Seed of Fennel in Wine. A recent Honeycomb, eaten with Vinegar, is, also, a good Medicine. *Paulus Ægineta*, Lib. 5. Cap. 16.

HYEMS, χειμῶν. The Winter.

The Diseases particularly incident to this Season of the Year, are Pleuritis, Peripneumonies, Lethargies, Catarrhs, Hoarseness, Coughs, Pains of the Breasts, Sides, and Loins, Head-achs, Vertigo, and Apoplexy. *Hippocrates*, 3 Aph. 23.

In the Winter it is proper to eat more, and drink less, but what is stronger; to eat much Bread, Flesh rather boiled, and moderately of Greens. Chuse all things hot, or of a heating Quality. Venereal Indulgences are not so pernicious in this, as in some other Seasons. *Celsus*, Lib. 1. Cap. 3.

The Winter requires much Labour and Exercise, and more plentiful Feeding, especially if the Constitution of the Season be Northerly, or dry and cold, as when the North Wind blows; but, when the contrary happens, the Labour ought to be the same, but the Diet more sparing; and the Body is to be dried, in proportion to the Moistness of the Season; and, by the same Rule, in Opposition to the Cold, it is advisable, to render our Bodies hotter

Hotter by Labour and Exercise, and the Use of hot Flesh-meats, and acrimonious Greens, and larger Allowances of Wine. *Oribas. Eupor. Lib. 1. Cap. 10.*

HYGIDION, ὑγιδιον. The Name of a Collyrium ascrib'd to *Ammonius*, and described by *Aegineta, Lib. 7. Cap. 16.*

HYGIEIA, HYGEIA, ὑγεία, ὑγεία, from ὑγίης, sound. Health, Soundness. Health is a right Disposition of the Body, and all its Parts, for performing their several Functions, consisting in a due Temperature, a right Conformation, and a just Connection. Health admits of Latitude, and is not one and the same in all Subjects, but is more perfect in one than another, who may yet be said to be in Health. The Word is, also, transfer'd to the Mind, and in that Sense means a just Disposition of the rational Powers, and the Passions, for their proper Actions; and this, in a great measure, depends on bodily Health.

Hygieia is, also, the Name of a Plaster, otherwise called *Papacea*, and the Plaster of the three Brothers, and described by *Aetius, Tetrab. 4. Serm. 3. Cap. 13.*

HYGIEINE, ὑγιεινή, from ὑγίης, sound, healthy, is the first Part of methodical Medicine, being that which prescribes Rules for the Preservation of Health. *Castellus.*

HYGRA, ὑγρὰ, liquid Plasters, in Opposition to XERIA, ξηρα, dry Plasters. *Castellus.*

HYGREMPLASTRA, ὑγρέμπλαστρα, from ὑγρὸς, humid, and ἐμπλάσσειν, a Plaster; liquid Plasters. The Word occurs in *Pliny, Lib. 34. Cap. 15.*

HYGROBLEPHARICUS, ὑγροβλεφαρικός, from ὑγρὸς, humid, and βλέφαρον, an Eye-lid; an Epithet given to some Ducks, or Emunctories, discovered in the extreme Edge, or inner Part, of both Eye-lids. They are otherwise called *Hygrophthalmici*. *Castellus.*

HYGROCIRSOCELE, ὑγροκίρσοκλή, from ὑγρὸς, humid, κίρσος, a Varix, and κήλη, an Hernia, is a Species of Hernia, compounded of an aqueous and varicous one, when varicous Obstructions arise in the Veins, which supply the Testes, and there is, at the same time, a copious Collection of Water in the Scrotum. *Galen in Def. Castellus.*

HYGROCOLLYRIUM, ὑγροκολλύριον, from ὑγρὸς, humid, or liquid, and κολλύριον, a Collyrium. A liquid Collyrium, consisting, for the most part, of liquid Ingredients. *Castellus.*

HYGROMETRUM, ὑγρομέτρον, from ὑγρὸς, humid, and μέτρον, a Measure, an Hygrometer. A Name which *Wedelius* has bestow'd, by way of Allusion to the Machine so called, on those infirm Parts, whose Contexture has been injured by a Fracture, though cured; and, by its Susceptibility of Impressions, shews the different State of the Air, with respect to Moisture, with greater Niceness and Certainty than the artificial Hygrometer. The same Author scruples not to call the Skin, a living *Thermometer* and *Hygrometer*. *Castellus.*

HYGROMYRON, ὑγρομύρον, from ὑγρὸς, liquid, and μύρον, an Ointment. The Name of a liquid sweet-scented Ointment, described by *Aetius, Tetrab. 4. Serm. 4. Cap. 114.*

HYGROPHOBIA, ὑγροφοβία, from ὑγρὸς, liquid, and φόβος, Fear, imports the same Disorder as *Hydrophobia*, and with Propriety enough, because the Patients conceive a Dread, not only of Water, but of all Liquids. *Cælius Aurelianus, Acut. Morb. Lib. 3. Cap. 9. See HYDROPHOBIA.*

HYGROPTHALMICUS, ὑγροφθαλμικός, from ὑγρὸς, humid, and ὀφθαλμικός, belonging to the Eyes, is the same as *HYGROBLEPHARICUS*, which see.

HYGROS, ὑγρὸς, humid; ὑγρὰ, the Feminine, is used simply for liquid Robin, in Opposition to ξηρὸν, (phryctē) torrefy'd. *Galen, Lib. 6. M. M. Hygra* is, also, spoken of ophthalmic Medicines, and means the same as *HYGROCOLLYRIUM*.

HYLARCHICUS, ὑλαρχικός, from ὕλη, Matter, and ἀρχων, a Prince, or Chief, is an Epithet given, by *Dr. Henry More*, in his *Enchirid. Metaphys.* to the universal Spirit of the World, which orders and governs the First Matter. *Castellus.*

HYLE, ὕλη, Matter, in Medicine, comprehends whatever comes under the Consideration of the medicinal Art, called, by *Galen, Com. 4. in 6 Epid. ὕλη τῆς τέχνης*. *Hyle*, in *Paracelsus*, seems, also, to signify Matter. *Lib. 2. de Morb. Fossor. Theat. Chymic. Vol. 2. p. 145.* It is, also, a Term, in chymical Authors, for the Philosophers Stone. *Theat. Chymic. Vol. 1. p. 16.* And hence that Mixture, in the spagiric Operation about the Philosophers Stone, or the fermentable Mass of *Terra alta foliata*, usually called *Chaos*, takes, also, the Name of *Hyle*. *Libavius Synt. Arc. Chym.*

HYMEN, ὕμην, signifies a Membrane in general, but commonly means that circular membranous Fold, with which the exterior or anterior Extremity of the great Canal, in Virgins, and especially before the first Eruption of the Menfes, is commonly border'd. This Fold is of different Breadths, more or less smooth, and sometimes semilunar, and in some Subjects leaves but a very small Opening, in others a larger Opening, and, in all, renders the external Office narrower than the rest of the Cavity. The Hymen is formed by the Union of the Internal Membrane of the great Canal, with that on the Inside of the *Ala*; and represents a membranous Circle, of different Breadths, and sometimes uneven: It is commonly ruptur'd after the Consummation

of Marriage; is quite lost in Delivery, and afterwards only some irregular Portions of it remain, which, from their supposed Resemblance to Myrtle-leaves, have been termed *Caruncula Myrtiformes*. This Circle may, also, suffer some Disorder by too great a Flux of the Menfes, by Imprudence, Levity, and other particular Accidents. *Winflow.*

With respect to the Hymen, upon which the Jewish Test of Virginity depends, it must be remark'd, that this Membrane is frequently not to be found in Girls a Month old, and very seldom in those of a more advanced Age. This I thought myself obliged to take notice of, because I have, sometimes, known Families render'd unhappy by a Disappointment, as to some unreasonable and ill-grounded Expectations, which, however it may happen in *Judea*, and the warmer Climates, ought to raise no Suspicions of Incontinence in ours.

HYMENODES, ὑμενώδης, from the preceding; membranous, or full of Membranes, or Pellicles. Thus ὑμενώδεις ἐρίσεις, and ὑμενώδεις ὕρον, is Urine with Membranes or Pellicles; and ὑμενώδεια ἐπιμυρία, *Lib. 1. περὶ γυναικ.* are membranous or fibrous Menfes, abounding with viscid Phlegm; and αἷμα ὑμένων ἀνδραπλεον, *Lib. eodem*, is Blood full of Fibres and Pellicles.

HYOIDES, ὑοιδέες. An Epithet of a forked Bone, at the Root of the Tongue, called the *Os Hyoides*. See *LINGUA*.

HYOPHARYNGÆUS *Musculus*. See *PHARYNX*.

HYOPHTHALMOS, ὑοφθαλμός, from ὕς, a Swine, and ὀφθαλμός, an Eye, Hog's-eye, is a Name for the *After Atticus*, and, also, for a Species of *ACHATES*. *Gorræus.*

HYOSCYAMUS.

The Characters are;

The Leaves are alternate, soft, and flat; the Calyx is Bell shap'd, short and wide-mouth'd, and divided into five acute Segments. The Flower is monopetalous, tubulous below, and expanded above, into five obtuse Segments, and furnished with five Stamina. The Fruit, inclosed within the Calyx, resembles a Pot with a Lid on it, and is divided into two Cells.

Boerhaave mentions eight Species of this Plant; which are, 1. *Hyoscyamus*; vulgaris; vel niger. *C. B. P. 169. Tourn. Inst. 118. Boerb. Ind. A. 229. Hyoscyamus*. Offic. *Hyoscyamus niger*. *Ger. 283. Emac. 353. Hyoscyamus vulgaris*. *J. B. 3. 627. Raii Hist. 1. 711. Synop. 3. 274. Park. Theat. 362. Hyoscyamus niger vulgaris, Apollinaris, Altercum*. *Merc. Bot. 1. 43. HENBANE.*

Common Henbane grows to be two or three Feet high, having large, thick, round, hairy Stalks, set thick with soft, hairy, clammy Leaves, cut into several sharp Laciniae, and sharp-pointed at the Ends; of a rank, strong, offensive Smell. The Flowers grow on the Tops of the Branches, several together, which flowering, by degrees, before they are all blown, the Stalk is extended to a pretty great Length, the Seed-vessels standing in a long Series, one under another: These Flowers are of a pale-yellow Colour, full of purple Veins, with several purple Chives in the middle, being monopetalous and Bell-fashioned, cut into five Segments, growing not much above the Calyx. The Seed is small, and somewhat flat, growing in a tumid Vessel, hid in the Calyx, which stands above it, appearing with five Corners, being stiff and hard. The Root is pretty long and thick, whitish both within and without, and not so offensive to the Smell as the Leaves; it grows frequently near Highways, and Ditchbanks; and flowers in *May* and *June*. The Leaves, Root, and Seed, are used.

The Leaves of Henbane are emollient, cooling, and anodyne, good for Inflammations, and to stop Desfluxions of hot Rheum; and are often put into cooling, repelling Ointments. The Roots are accounted narcotic, and are but rarely used inwardly; they are frequently hung about Childrens Necks, being cut to pieces, and strung like Beads, to prevent Fits, and cause an easy Breeding of the Teeth. The Seed is commended by *Mr. Boyle* against spitting of Blood, as well as any other Hemorrhage, made into an Electuary, with Conserve of Roses, and white Poppy-seeds. *Miller's Bot. Off.*

Its Leaves are insipid, and have an ill Scent; they give a pretty deep red Tincture to the blue Paper. The Root gives it a little fainter Red; it is sweetish, and has the Taste of an Artichoke. It is likely, that the Sal Ammoniac, which is in this Plant, is involved in a great deal of Sulphur and Earth; for,

By the chymical Analysis, its Leaves yield some volatile concreted Salt, and a great deal of Oil. Henbane is very soporific, resolving, and lenifying; it is seldom taken inwardly. *Helldaus* set a great Value upon its Seed, and mixed it with the Conserve of Roses, for spitting of Blood. *Tragus* affirms, that the Juice of Henbane, or the Oil made by Infusion of its Seeds, cures Pain in the Ears, if one syringes them with it. Henbane is used in anodyne Cataplasms, to resolve Tumors: For Example; they boil, in a certain Quantity of Milk, two Handfuls of Henbane-leaves; as much of those of Mandrake and Nightshade; and one Ounce of the Seeds of Henbane, and Poppy: Strain it all through a Sieve, and add the Yolk of an Egg, and a little Saffron. Some boil only the Leaves of Henbane in Milk, and apply them to the Part that is afflicted with the Gout. Some soften the Leaves of the same Plant, under

the Coals; and lay them upon the Breasts, to free the Passage of the Milk, or dissipate the Clods. *Tabernaemontanus* says, that the Seeds of it must be bruised with Wine, and applied as a Cataplasm upon the Breasts of Women newly brought to Bed. The Oil pressed out of this Seed has the same Virtues. For Chilblains on the Hands, hold them over the Smoke of Henbane Seeds burning upon Coals; and squeeze the Fingers, till the extravasated and condensed Lymph comes out: This Lymph, as it passes thro' the Pores of the Skin, takes the Shape of little Worms *Martyn's Tournefort*.

An Oil is prepared of the Seed, which is of mighty Efficacy in procuring Sleep, the Temples being anointed with it: It is also of Service in the Gonorrhœa, or an immoderate Flux of the Menfes, being applied to the Region of the Loins, and to the Perinæum. *Dale from Buxb.*

2. Hyoscyamus; rubello flore. *C. B. P.* 169. *M. H.* 2. 495.

3. Hyoscyamus; albus; major; vel tertius Dioscoridis; & quartus Plinii. *C. B. P.* 169. *Tourn. Inst.* 118. *Hist. Oxon.* 2. 494. *Boerb. Ind. A.* 229. *Hyoscyamus albus.* *Offic. J. B.* 3. 627. *Ger.* 283. *Emac.* 353. *Park. Theat.* 262. *Raii Hist.* 1. 712. **WHITE HENBANE.**

White Henbane differs from the black, in being a lesser Plant, and not so woolly; the Leaves are broader, shorter, and less jagged, standing on long Foot-stalks, and are less offensive to the Smell; the Flowers are fewer, being of a pale-yellowish Colour, and not so big as the black; the Tops of the Calyces are larger, and the Seed whiter. It grows wild in the warmer Regions, but, with us, only in Gardens, flowering in July.

This Species of Henbane is accounted to be of a milder and less noxious Nature than the black Henbane, and therefore safer to be given inwardly, without Fear of any dangerous Consequences attending. *Miller's Bot. Off.*

It is to be met with, tho' but seldom, in the Gardens of Botanists. The Part in Use is the Seeds, which are small, round, flat, of an Ash-colour inclining to brown, of a fat and somewhat viscid Taste, and of a narcotic and ungrateful Smell: It is prescribed in an Hæmoptoe, or Spitting of Blood. *Dale.*

The ancient Physicians frequently used either the Juice of the white Hyoscyamus, expressed from the green Stalks, Flowers, and Seeds; or the dry'd Seed, macerated in warm Water, and then bruised, for mitigating acute Pains, especially of the Eyes; for which Purpose, Collyria were prepared of the same. The same Medicine was in Use for acute Pains of the Ears; tho', indeed, the Use of these Kinds of Medicines, which take away the Sense of Pain, and are called by the Greeks *ναρκωτικά*, Narcotics, has been much suspected by the best Physicians; for it cannot but be pernicious, as it diminishes the sensitive Faculty in Bodies. *P. Alpinus de Plant. Exot.*

4. Hyoscyamus; major; albo similis; umbilico flore atropurpureo. *T. C.* 5.

5. Hyoscyamus; albus; Ægyptius. *Alp. Exot.*

The white Seeds of this Plant are very much inquir'd after in Europe. But our Apothecaries, instead of them, very erroneously substitute the Seeds of the yellow *Hyoscyamus*, which are yellow; and the Plant is erroneously taken by the vulgar Sort for the white *Hyoscyamus*.

The Juice of the white Hyoscyamus is very useful in a Cough proceeding from a Distillation of acrimonious and salt Humours from the Head, and the Forerunner of a Phthisis. To prevent so troublesome a Disorder, the Egyptians, when they go to sleep, take a Spoonful of the Seeds, very finely triturated, with an equal Quantity of Sugar pulverized; and find great Relief by it, in blunting and sweetening the Acrimony and Saltness of the Humour, and inducing Sleep. The Women also pound the Seeds, and take them in Sugar, for an immoderate Flux of the Menfes. *Prosper Alpinus de Plant. Exot.*

6. Hyoscyamus; Creticus; luteus major. *C. B. P.* 169. *Prodr.* 192. *M. H.* 2. 494.

7. Hyoscyamus; aureus. *Alpin. Exot.* 99.

This Plant grows in the Island of Crete, or Candy; and bears small Flowers of a Gold Colour, whence it takes its Name: The Seeds are very small and yellow. Besides this Species, called the Golden *Hyoscyamus*, there grows in the same Island another kind of Hyoscyamus, which bears yellow Flowers, and produces yellowish Seeds; which are taken by our Apothecaries for those of the white Hyoscyamus.

Galen, Lib. 8. Simpl. says very justly of all the Hyoscyami, "The Hyoscyamus, which bears black Seed, causes Madness and Lethargy; and that with the yellow Seeds nearly resembles it in Qualities: But the third is very useful in Medicine, being reckon'd in the third Order of Refrigerants." *P. Alpinus de Plant. Exot.*

8. Hyoscyamus; folio in tenuissimas & acutiores lacinias scissis. *Boerb. Ind. alt. Plant. Vol. 1.*

The *Hyoscyamus*, taken in a small Quantity, inebriates; in a greater, it induces a Sopor; in a Dose still larger, it brings on Convulsions; and, if the Quantity be still increased, its Effects are most certain Death. However, it has an anodyne Virtue; for, if the Leaves be bruised with Vinegar, they remove Pain, where it is proper to be removed; they act, or exert their Vir-

tue, by way of Suffocation. The Leaves, boiled in sweet Milk, are an admirable Anodyne in Pains of the Gout, being applied to the affected Parts, especially with an Addition of Oil of Hyoscyamus, mixed with Oil of Olives. The Seeds are reckon'd among Narcotics, but are to be used with Caution; for they induce Sleep, while they remove Pain. In *D. Lodovici Pharmacia moderno Sæculo applicata*, there is describ'd a Cataplasm, prepared of the Leaves of Hyoscyamus, boiled in Oil, and reduced, with Wax, into the Form of a Cataplasm, which has admirable Virtues. The Oil, injected into the Ears, has a good Effect in Pains, or Hardness, proceeding from heterogeneous Matter therein. The Leaves, mollified at the Fire, are very good to dissipate Milk. In the Tooth-ach, the Smoke of the Seed is received thro' a Funnel; the same is a very good Remedy in Chilblains of the Hands and Feet. This Plant is an Ingredient in the *Populeum*; but these Suffumigations of the Teeth and Ears are to be used with Moderation, for fear of inducing a Stupor and Delirium.

The Name Hyoscyamos, *ὕοσκυαμος*, is derived from *ὕς*, a Swine, and *κύαμος*, a Bean, that is to say, *Hogbean*, because its Fruit resembles a Bean; and, as *Ælian* tells us, when the wild Swine have eaten of Hyoscyamus, they immediately fall into such violent Convulsions, that they would immediately die, if they did not throw themselves into Water, where, by plentiful eating of Crabs, they are perfectly recovered. *Hist. Plant. ascript. Boerhaave.*

HYOSCYAMUS is also used for several Sorts of NICOTIANA; which see.

HYOSERIS.

The Characters are;

The Leaves about the Stalk are sessile, or without Pedicles. The Calyx bends forward, is contracted into a conic Form, and the Stalk wreathed; the Seeds are disposed in a flat Disk.

Boerhaave mentions but one Species of this Plant; which is, Hyoseris; angustifolia. *Tab. Ic.* 180. *Hieracium, minus, folio dentis Leonis oblongo, glabro.* *C. B. P.* 127. *T.* 470. *Boerb. Ind. alt. Plant. Vol. 1.*

It agrees in Virtues with the *Cichoreum* or *Succory*, according to the *Historia Plantarum* attributed to *Boerhaave*.

HYOTHYROIDES, a Name given to two Muscles, which serve to dilate the Chink of the Larynx. See LARYNX.

HYPACTICOS, *ὑπακτικός*, from *ὑπάγω*, to subdue, or bring down, or under, is a Word appropriated to express the Virtue of cathartic Medicines.

HYPÆTHROS, *ὑπαιθρος*, from *ὑπὸ*, under, and *ἄιθεος*, the Cool of the Morning. A Place in the open Air, where Walking, and other Exercises, in Use among the Ancients, were usually performed. The Word occurs in *Hippocrates, de R. V. I. A.*

HYPALÉIPTRON, *ὑπάλειπτρον*. A Sort of Spatula, for spreading Plaisters or Ointments, from *ἀλείφω*, to anoint.

HYPALÉIPTON, *ὑπάλειπτον*. A Liniment.

HYPECOUM.

The Characters are;

The Leaves are finely jagged, like those of the *Fumaria tenuifolia*. The Calyx consists of four Leaves, (one Pair of them small and herbaceous, the other Pair larger and floral) withers, and falls off. The Flowers are dipetalous, the Petals bifid, in such a manner, as to make the Flowers appear tetrapetalous. From each Division of the Petals arises another sort of Petal, closely covering the Ovary, and four Stamina, on both Sides. The Ovary is furnished with a corniculated Tube, and becomes a flat, jointed Pod, containing, in each Joint, a single Seed.

Boerhaave mentions but one Sort of this Plant; which is,

Hypocoum; latiore folio. *Tourn. Inst.* 230. *Boerb. Ind. A.* 307. *Hypocoum.* *Offic. C. B. P.* 172. *Hypocoum siliquosum.* *J. B.* 2. 899. *Hypocoum legitimum Clusii.* *Park. Theat.* 371. *Raii Hist.* 2. 1328. *Cuminum corniculatum, sive Hypocoum Clusii.* *Ger.* 909. *Emac.* 1067. **HORNED WILD CUMIN.**

It grows in Provence and Languedoc, and flowers in May. *Dioscorides* says, it is possess'd of the same Virtues with Poppy; and the modern Accounts thereof agree with his.

HYPECOMALTERUM. See CUMINUM SILIQUOSUM.

HYPELÆON, *ὑπὲλαιον*, from *ὑπὸ*, under, and *ἐλαιον*, Oil. The Dregs or Sordes of Oil.

HYPELATOS, *ὑπὲλατος*, from *ὑπὸ*, under, and *ἐλαύνω*, to agitate. An Epithet of cathartic Medicines.

HYPENE, *ὑπὲν*, usually signifies a Beard; but, according to an Interpreter of *Homer*, it is the upper Lip, where the first downy Hairs appear. *Cælius Aurelianus* writes, that the first downy Appearance of a Beard, about both the Lips, is so called. *Gaza* renders the Word from *Aristotle* by *Myllax*, the Hair of the upper Lip, or Mustaches. *Gorriens.* *ὑπὲν*, in *Ruffus Ephesius*, is the Hair under the Chin. *Pappos, πύππτον*, the Hairs upon the Chin; and the first Appearance of the Hairs on the upper Lip, he calls *πύππτον* (*Propogonion*); which, when come to Maturity, take the Name of *μύσταξ* (*Mustaces*). *Ruffus Ephesius, Lib. 1. Cap. 7.*

HYPENEMIUS, *ὑπὲνμιος*, from *ὑπὸ*, under, and *ἀνιμιος*, the Wind, is an Epithet of barren Eggs, or such as are not impregnated by the Tread of the Cock. These Eggs are otherwise called *Ova Zephyria*, because *Zephyrus*, or the West Wind, was thought to contribute towards their Generation. *Castellus.*

HYPERBOLICUS,

HYPERBOLICUS, ὑπερβολικός, from ὑπερβάλλω, to exceed, or go beyond Measure, hyperbolical, or excessive, is a Term applied by *Galen*, *Com. 1. In Prognost. No. 13.* to the Position of the Body in Decubiture, when the Arms and Legs, and Spine, the Vertebrae of the Neck included, are extended or retracted beyond their due and ordinary Measure.

HYPERCATHARSIS, ὑπερκάθαρσις, from ὑπερ, a Preposition importing Excess, and κάθαρσις, Purgation, is an immoderate or excessive Purgation, the usual Effect of a colliquating, corrosive, and stimulating Medicine. *Hippocrates*, 5 *Aph. 4.* and *Coac. 565.* says, that Convulsions, or the Hiccough, succeeding an *Hypercatharsis*, are bad Symptoms; and, in such a Case, advises, as quoted by *Aetius*, to put the Patient immediately into a warm Bath, and let him drink a generous yellow White-wine, before and after Bathing.

An *Hypercatharsis* happens, when, by a continual Irritation of some corrosive and stimulating Cathartic, the Tone of the Vessels belonging to the Belly is relaxed, and their Orifices opened. In the Beginning of this Disorder, a very thin Matter, and such as Nature does not want, is evacuated; but, afterwards, when the Relaxation and Aperture of the Vessels are increased, the necessary Humours are discharged; and, first, there is an Excretion of yellow Bile, then of Phlegm, after that of black Bile, and last of all of Blood, a Fluid the most necessary to Nature of all the Humours: But, before this happens, the thinnest of the Humour is first discharged, and the thickest last of all. If you administer, therefore, too strong a Phlegmagogue, after Phlegm is evacuated, there comes an Excretion first of yellow, next of black Bile, then of Blood. If you give a violent Cholagogue, the Discharge of the Bile is succeeded by an Evacuation first of Phlegm, next of black Bile, and lastly of Blood. Too violent a Melanagogue, after evacuating the black Bile, expels the yellow, then Phlegm; and, last of all, causes an Excretion of Blood, as if it were from Vessels quite depriv'd of their natural Tone and Firmness. For, when the Vessels, through Imbecillity, can no longer retain the other Juices, and their Orifices are opened, and the Medicine never ceases to irritate, when it can no longer attract the Humour to which it is appropriated, it is necessary, that the rest should follow in the Order above-related. *Oribas. Med. Coll. Lib. 14. Cap. 42.*

They who labour under an *Hypercatharsis*, must be treated with Frictions of the Skin, and a warm Bath, drinking, before they bathe, thin, red, or yellow Wine, for such is easiest of Distribution, with Sops of Bread, and Pomegranates. If the Evacuation proceeds, let the Limbs be bound in such a manner, that the Bandage may be carry'd from the upper to the lower Parts; and, by its Astringency, may cause an Interception of the Blood and Spirits, and so prevent an excessive Effusion and Dissipation. Exhibit, also, a small Quantity of Theriaca, to be taken with the Flesh of Vipers; for this Medicine passes to the Skin, and, in a short time, makes a Revulsion, and diverts the Course of the Humours from the Belly, and blunts what is poisonous and operative in Cathartics. If this be wanting, you may take, instead thereof, Troches of Theriaca, or Troches of Seeds, (see *Pastillus de Seminibus*) and of the Antidote called *Philonium*. Cupping-glasses may, also, be apply'd to the Stomach, and Cataplasms of Polenta and Mulsam; after which you must use astringent Epithems; but the greatest Relief is obtained from Frictions of the whole Body, and potable Remedies. The Patient must keep himself from the cold Air, and what is very warm; for the first repels the Humours from the external Parts inwards, and so increases the Flux; and the other dissipates and dissolves the natural Strength and Spirits. If the Evacuation, thro' the corroding Force of the Cathartic, be increased, the aforesaid Cataplasms must be apply'd, and Obtrudents be injected in Clysters, such as the Fat of a Goose, sweet Wine, Oil of Spike, and others of the like Nature. *P. Aegixeta, Lib. 7. Cap. 7.*

In an *Hypercatharsis*, Drinking is to be sparingly indulg'd, and Sleep procured. Astringent Wine, diluted with Spring-water, is to be exhibited in small Quantities. Thick Polenta, roasted and sprinkled in the Drink, or a small Quantity of the Heads of Poppy, or of Galls, is of Service in this Case. The Flower of decorticated or husked Lentils, boiled with Vinegar and the black Beet, with an Addition of Sumach, and a small Quantity of Poppy-heads, are very effectual. Dry'd Pears, expressed with the Juice of Quinces, are, also, good. If the Purging continues with Violence, we must use more effectual Remedies, and such as are prescrib'd in colic Disorders. To those who are easy to vomit, plenty of warm Water is to be given to drink, and Vomiting is to be promoted, either with the Finger, or intruding a Feather; and this must be attempted two or three times together. Then warm some Oleum Melinum (see *Melinum Oleum*) and Wine, and apply a Linen Cloth dipped in it to the Belly; and, after some moderate Distance of Time, exhibit the Quantity of a Bean of Theriaca, to be taken in Wine. *Aetius, Tetrab. 1. Serm. 2. Cap. 118.*

HYPERCORYPHOSIS, ὑπερκορύφωσις, from ὑπερ, above, and κορυφή, the Vertex, an Eminence, or Protuberance. *Hippocrates* calls the Lobes of the Liver, and of the Lungs, *Hypercoryphosis*, ὑπερκορύφωσις.

HYPERCRISIS, ὑπέρκρισις, from ὑπερ, above, and κρίσις, a Crisis, an Hypercrisis, is an excessive and violent Crisis of a Disease, when Nature, oppressed with the Abundance of the morbid Matter, makes extraordinary Efforts to free itself by immoderate Evacuations, attended with the greater Danger to the Patient, *Galen, Com. 3. in Prognost. T. 1.* It is also called *Hypercrisis*, ὑπερέκκρισις, a Superexcretion. *Galen, de C. M. S. L. Lib. 2.*

HYPEREPHIDROSIS, ὑπερεπίδρωσις, from ὑπερ, signifying Excess, and ἰδρῶς, Sweat. An excessive, or immoderate Sweating. *Blancard.*

HYPERESIA, ὑπέρησις, Ministry, Office, in *Moschion de Morb. Mul.* is used to signify the organical Function of the several Parts of the Body.

HYPERETRIA, ὑπέρητρια, a Female Assistant, or Midwife, at the Time of Labour; on which Occasion, *Moschion, de Morb. Mul.* requires there should be three, at least, present.

HYPERICUM.

The Characters are;

The Root is fibrous; the Leaves are conjugated, or grow by Pairs, at the Joints of the Stalks. The Calyx consists of one Leaf, is quinquefid, not caducous, expanded. The Flowers are rosaceous, pentapetalous, adorned with many Stamina, embrace a conic Ovary, which is furnished with three long bended Tubes, and becomes a small oblong Fruit, consisting of three Capsules closely joined, and filled with numerous minute Seeds.

Boerhaave mentions thirteen Species of this Plant; which are,

1. *Hypericum*; vulgare. *C. B. P. 279. Park. Theat. 572. Tourne. Inst. 274. Boerb. Ind. A. 1. 241. Hypericum. Offic. Ger. 432. Eniac. 539. Raii Hist. 2. 1018. Synop. 3. 342. Hypericum vulgare sive perforata caule rotundo, foliis glabris. J. B. 3. 381. ST. JOHN'S-WORT.*

St. John's-wort grows to be about two Feet high, very much spread out into Branches, which are smooth and round, having at each Joint two small oblong Leaves, growing without Footstalks, with three pretty large Veins, running on the back Side of each, and, upon being held up against the Light, appearing full of small Holes; whence it is called *Perforata*. The Flowers are numerous on the Tops of the Branches, consisting of five yellow Leaves, with a great Number of Apices and Stamina, when bruised between the Fingers, emitting a bloody Juice. The Seed-vessel is longish and angular, somewhat like a Coin of Barley, divided into three Partitions, full of a very broad small Seed; it has somewhat of a resinous Smell. The Root is hard and woody, spreading much, and abiding many Years. It grows in Hedges, and among Bushes, and flowers in *June* and *July*. The Leaves and Flowers are used.

St. John's-wort is aperitive, deterfive, and diuretic, helpful against tertian and quartan Agues, is alexipharmic, and destroys Worms, and is an excellent vulnerary Plant. A Tincture of the Flowers, in Spirit of Wine, is commended against Melancholy and Madness. Outwardly, it is of great Service in Bruises, Contusions, and Wounds, especially, in the nervous Parts. *Gerard*, in his Herbal, gives a very good Receipt of a compound Oil, of great Service in the foregoing Accidents. *Miller's Bot. Off.*

Its Leaves are styptic, and a little saltish; they have a Sale resembling Sal Ammoniac, but it is united with a great deal of Earth, and dissolv'd in a Liquor not unlike Spirit of Turpentine; for the transparent Points upon the Leaves of this Plant, which seem to be so many Holes, the black Points upon the Borders of its Flowers, and the little Knobs upon its Fruits, ought to be regarded as so many Bottles fill'd with this Liquor. It is no wonder then, that St. John's-wort should be vulnerary, deterfive, diuretic, febrifugous, and good for the Vapours. They distil this Plant, and make an Oil and an Extract of it; the Oil is simple or compound. The Simple is made thus: Infuse the Tops of St. John's-wort between Flower and Seed, in a sufficient Quantity of Olive-oil; set it for some Days in the Sun; strain it out, and reiterate the Infusion, till it be of a deep Red. For the Compound Oil, infuse one Pound of the Tops of the same Plant in two Pounds of Oil, and one Pound of Red-wine; after it has been macerated three Days, boil it in *Balneo Mariae*, till the Wine be consumed: Make three Infusions after the same manner, and in the last dilute a Pound of *Venice* Turpentine, and four Scruples of Safron. These Oils are excellent for all sorts of Wounds; they give half an Ounce or an Ounce of it to drink, for Spitting of Blood, and the Dysentery; for the Sciatica, Rheumatism, and such-like Diseases, they rub the Part with two Ounces of Oil of St. John's-wort, and one Ounce of good Spirit of Wine. This Mixture is very resolving. To make the Extract of this Plant;

Take the Flowers in the Bud, put them to digest for two Days in good Spirit of Wine, squeeze out the Infusion, and let it evaporate to the Consistence of an Extract: They give from a Scruple to a Dram of it.

Angelus Sala prescribes the Use of it for Madness, Melancholy, and raving Fits, which come without a Fever, or any manifest Cause. They have given the Name of *Fuga Daemonum*

to St. John's-wort, because they believ'd it to be good to cure those whom they fancy'd to be possess'd; but it is worth our Observation, that these People are commonly Cheats, or really hypochondriac; and, generally speaking, all the Herbs which are thought good for pretended Possessions, are excellent for Vapours, Madness, and Melancholy: The Decoction of St. John's-wort, the distill'd Water of this Plant, and the Infusion of its Seed, kill Worms, and provoke Urine. It is used in the antinephritic Syrup of *M. Charas*, aperitive and cachectic Syrup of the same Author; Syrup of Mugwort, Powder which *Paulmier* (*Palmarius*) has prescribed for Madness, *Venice Treacle*, reform'd Treacle of *M. Charas*, *Mithridate*, compound Oil of Scorpions, the *Unguentum Martiatum*, and in the *Mundificativum ex Apio*. *Martyn's Tournefort*.

2. *Hypericum*; *Ascyron dictum*; caule quadrangulo. *J. B.* 3. 382. See *ASCYRUM*.
 3. *Hypericum*; villosum; erectum; caule rotundo. *T.*
 4. *Hypericum*; elegantissimum, non ramosum, folio lato. *J. B.* 3. 383.
 5. *Hypericum*; supinum; tomentosum; Hispanicum. *Clus.* *H.* 181.
 6. *Hypericum*; minus; erectum. *C. B. P.* 279.
 7. *Hypericum*; minus; vel minus; supinum; glabrum. *C. B. P.* 279. *M. H.* 2. 469.
 8. *Hypericum*; perfoliatum; & perforatum. *T.* 255.
 9. *Hypericum*; folio breviori. *C. B. P.* 279. *M. H.* 2. 469.
 10. *Hypericum*; frutescens; Canariense; multiflorum. *H. A.* 2. 135.
 11. *Hypericum*; foetidum; frutescens. *T.* 255.
 12. *Hypericum*; Orientale; flore magno, *T. Cor.* 19.
 13. *Hypericum*; crispum; triquetrum, & cuspidatum, folio. *Bocc. Mus.* p. 2. *T.* 12. *Boerb. Ind. alt. Plant. Vol.* 1. p. 242.
- Miller* enumerates thirty Species of this Plant.
Hypericum frutescens. A Name for the *Spiraea*; *Hyperici folio*, non venato.

Hypericum maximum. See *ANDROSÆMUM*.

Hypericum saxatile. See *CARIS*.

HYPERINESIS, ὑπέρνσις, from ὑπέρ, importing Excess, and ἵνσις, an Evacuation. An immoderate Evacuation. The Word occurs in *Hippocrates*, de *Loc. in Hom.* and means the same as *HYPERCATHARSIS* before.

HYPERINOS, ὑπέρηνος, from ὑπέρ, denoting Excess, and ἵνσις, to evacuate, signifies one who is immoderately evacuated or purged, and, also, one who is extenuated. *Galen, Com. in 6 Epid.* explains the Word by κενωμένος (*cecenomenos*) "evacuated;" but, in his *Exegesis*, he says, ὑπέρηνος ὁ ὑπὲρκαθαρμμένος ἄνθρωπος, ὃν αὐτὸν ὑπέρηνος, &c. "Hyperinos signifies both the Person who is over-purged, and the Super-purgation itself; and some have expounded it by saying, ὑπέρηνος ἰσχυραίνει, Hyperinos is one who is extenuated: But the Word seems to me to have a double Meaning, after the manner of μακρόπνους (*macropnos*) and βραχύπνους (*brachypnos*). His Meaning is, that as these Words, μακρόπνους, and βραχύπνους, signify not only long and short Respiration, but, also, the Subjects affected by them; so Hyperinos is used, indifferently, for an immoderate Evacuation, and the Person who is exhausted by such a Discharge. *Varinus* explains ὑπέρηνος by ὁ σφόδρα λεπτός, "One who is much extenuated;" and *Pollux*, ἐξινωμένος, "immoderately evacuated, or exhausted."

HYPEROA, ὑπερῶα, from ὑπέρ, and ὤον, an upper Place, the upper Part of the Mouth, called also *Palatum*, and *Basis Cerebri*. *Castellus*.

HYPEROS, ὑπερός, is a Pistle, which *Hippocrates*, *Lib. de Fract.* uses instead of a Staff, for the Extension of broken Bones. *Foefius*.

HYPERPHYES, ὑπερφύεις, from ὑπέρ, above or beyond, and φύω, importing to be generated in the natural Way, is an Epithet which imports something beyond, or contrary to the ordinary Course of Nature; and is applied by *Hippocrates*, *Lib. de vet. Med.* to Disorders which are extremely bad and dangerous.

HYPERSCARCOSIS, ὑπερσάρκωσις, from ὑπέρ, importing Excess, or Superfluities, and σαρξ, Flesh, is an Excrescence of Flesh.

HYPEXODOS, ὑπὲξοδος, from ὑπὲρ, under or beneath, and ἵνσις, a Passing-forth or out, signifies Excretions, or a Flux, of the Belly.

HYPEZOCOS, ὑπεζωκός, from ὑποζώννυμι, to undergird, is spoken of those Membranes which are spread under other Parts; thus the *Pleura* is extended under the Ribs. *Celsus Aurelianus*, *Lib. 2. acut. Morb. Cap.* 16. ascribes a Cough to the Content of the Parts which are near and contiguous ὑπεζωκὴν Ἀερίων, "To the surrounding Membrane."

HYPIEAR. See *VISCUS*.

HYPIEGESIS, ὑπὲγσις, from ἡγέομαι, to lead; a going before, a leading or shewing the Way: Thus, *Lib. de Natura Pueri*, ὃν ὑπὲγσις ἔχει τὸ πρὸς τὸν ὄντα ἐπὶ τῇ γένεσιν, "And a Way was mark'd out for it, like Water poured on a Table." For in the Birth the Way was made for the Passage of the Fœtus, by the previous Flowing of the thin Ichor, or Water, as Water,

poured on a Table, is derived and drawn along by the Finger, till it finds a Way to flow off. And, in *Jurejurando*, ἐδὲ ἐφηγέσθαι ἐμὴν ἐλπίδα, "Nor will I be the Author, or Adviser of any Counsel of that Nature," that is, of giving deadly Medicines to any Person whatsoever.

HYPNOBATES, ὑπνοβάτης, from ὕπνῳ, Sleep, and βαίνω, to go; one who walks in his Sleep.

HYPNOLOGICA, ὑπνολογικά, from ὕπνῳ, Sleep, and λόγῳ, a Discourse, is a Part of Medicine, teaching a due Regulation of Sleep and Waking.

HYPNOPOEOS, ὑπνοποιός, from ὕπνῳ, Sleep, and ποίω, to make or cause, is an Epithet of such Medicines as procure Sleep.

HYPNOS, ὕπνῳ, Sleep. See *SOMNUS*.

HYPNOTERON, ὑπνότηριον, the Name of an hepatic Epithem in *Aetius*, *Tetrab.* 3. *Serm.* 2. *Cap.* 11. where he treats of the Cure of a scirrhus Spleen.

HYPNOTCUS, ὑπνωτικός, from ὕπνῳ, Sleep; the same with *HYPNOPSIS*, before.

HYPNUM, a kind of fertile Moss, furnished with a Multitude of little calyptrated Heads, whose Calyptræ, for the most part, sit obliquely on them; the Heads fall off transversely, with their Margin sometimes indented, sometimes entire; and stand upon pretty long Pedicles, produced from the Wings of the Leaves, along the Stalks and Branches; and have their lower Part surrounded with squamous Involucra, or Covers, different from the Leaves: To this it may be added, that the Straks are, for the most part, more dispersed, and more fertile of Branches, than in the *Bryon*. *Ray's Synopsis Strip. Brit.* The general Divisions of *Hypnum*, see under the Article *BOTANY*.

HYPO, ὑπὲρ, a Preposition signifying under; but, in Composition, imports, not only an Inferiority with respect to Situation, but a Remission or Diminution; as will be obvious from Examples in some of the subsequent Words.

HYPOBRYCHIOS, ὑποβρύχιος, from ὑπὲρ, and βρύχιος, demerged, sunk, in *Hippocrates* and *Aretæus*, signifies latent, or deeply seated; and is applied to the slow Beginning of a Fever, and to the Veins, and other deeply situated Parts. *Castellus. Foefius*. See *BRYCHIOS*.

HYPOCAPNISMA, ὑποκάπνισμα, from ὑπὲρ, and καπνίζω, to fumigate. Suffumigation. *Moschion de Morb. Mul.*

HYPOCARODES, ὑποκαρώδης, from ὑπὲρ, importing a Diminution, or lower Degree, of any Quality, and κάρω, a Carus, is one who labours under a Sopor, or lower Degree of a Carus. *Hippocr.* 1. *Proorrh.* & *Coac.* In *Lib.* 3. *Epid.* we read ὑποκαρώδης (*Hypocarothis*) in the same Sense.

HYPOCATHARSIS, ὑποκάθαρσις, from ὑπὲρ, importing Diminution, and κάθαρσις, Purgation, is a slight Purgation downwards, and so opposed to *HYPERCATHARSIS*. The Word, however, is sometimes taken, simply, for any Degree of Purgation by the Belly, as in *Hippocrates*, *Lib. de Ulcer.* and *Galen*, *M. M. Lib.* 4. *Cap.* 6.

HYPOCAUSTUM, ὑποκαυστόν, from ὑπὲρ, under, and καύω, to burn, is properly an Apartment for Bathing or Sweating, which is heated by a Fire under its Floor; but is generally used to signify a Stove.

HYPOCEPHALÆON, ὑποκεφαλαίον, from ὑπὲρ, under, and κεφαλή, the Head, is a Pillow, or any Support for the Head. *Hippocrates*, 1. *de Morb. Mul.*

HYPOCERCHALEON, ὑποκερχαλίον, from ὑπὲρ, and κέρχῳ, an Asperity of the Fauces, in 7. *Epid.* is a stridulous kind of Asperity of the Fauces and Aspera Arteria.

HYPOCHOERIS, a Species of *Sonchus*, not so prickly as the others: It comes from ὑπὲρ, importing Diminution, and χοῖρος, a Swine. *Blancard*.

HYPOCHEOMENOS, ὑποχέμενος, is one labouring under a Suffusion, or Cataract. *Galen*, de *Sanit. tuend.* *Lib.* 6. *Cap.* 9.

HYPOCHLOROMELAS, ὑποχλωρομέλας, from ὑπὲρ, importing Diminution, χλωρός, of a kind of pale Colour, and μέλας, black. Of a palish Colour inclining to black. *Hippocrates*, *Lib.* 6. *Epid.*

HYPOCHONDRIA, ὑποχόνδρια, from ὑπὲρ, under, and χόνδριος, a Cartilage. The Hypochondria, or that Part of the Body, on both Sides, which lies under the spurious Ribs, and is extended to the Iliæ, comprehending not only the Muscles, but the internal Viscera; because, as *Pollux* says, τὸ χόνδριον ὑποχόνδριον, "It is subjacent to a Cartilage." *Celsus*, from several Places of *Hippocrates*, renders the Word by *Præcordia*; and *Celsus Aurelianus* often puts *Præcordia inflammata*, for an Inflammation of the Hypochondria.

Affections of the Hypochondria, in *Hippocrates*, are;

Hypochondrium anesphasmenon, ὑποχόνδριον ἀνισπασμένον, a Revulsion and Retraction of the Hypochondrium inwards, without any proper Disorder of the Part, which is a Prognostic of an Hæmorrhage, and a Phrensy. *Coac.* 119.

Hypochondrium diaborhorizonta, ὑποχόνδρια διαβορχορίζοντα, a Rumbling of the Hypochondria, 5 *Arb.* 64.

Hypochondrii Entasis, &c. ὑποχόνδρια ἐντάσις λαπαρῶν, & ὑποκάταρῶν, a soft or softish Tension of the Hypochondria, without a Tumor or Inflammation, *Lib.* 3. *Epid.* 2. & 10.

Ægr. 16. *post Stat. pest.* There is also *ὑποχονδρεία ἐν ἡμῇ* *ὑπερμακρῶς*, an oblong Tension of the Hypochondrium, proceeding from an Inflammation of the two strait Muscles of the Epigastrium, which are extended from the Thorax, in a strait Line, to the Ossa Pubis. 1. *Prorrhet.* 144.

Hypochondria Catexerasmēna, &c. *ὑποχονδρεία κατεξερσμένα σφόδρως*, ἢ *ἰσχυρῶς αὐχμώδη*, Hypochondria very squalid and dried up, & *σπασσάμενα*, and contracted and depressed by an excessive Dryness, not *ἀνσπασμένα*, drawn inwards by an internal Inflammation. *Galen, Com. 1. in Lib. de R. V. I. A.*

Hypochondria metēora, *ὑποχονδρεία μετέωρα*, elevated or tumid Hypochondria, 1. *Epid. Ægr. 8. 4 Aph. 72.* The same are expressed, *Lib. de R. V. I. A.* by *ἐπρημένα* (*epremena*) raised or lifted up, meaning by Flatulences, as *Galen* explains it.

Hypochondrii Xyntasis, *ὑποχονδρεία ζύντασις*, such a Distention of the Hypochondria, as proceeds from an Inflammation, 1. *Epid. Ægr. 2. 3. 8. 10.* and elsewhere.

Hypochondrii Scoliotēs, *ὑποχονδρεία σκολιότης*, an Obliquity of the Hypochondrium, that is, an Inequality of that Part: Thus, in the following Passage, *Lib. de R. V. I. A.* *ὑποχονδρείον μὲν γὰρ ἐπὶ πᾶσιν ὄσιν, ἢ ἐπρημένον, ἢ ἔχει τινὰ σκολιότητα*, "If, therefore, the Hypochondrium be pained, or tumefied, or contract an Obliquity." *Σκολιότης* is explain'd, in *Galen*, by *ἀνωμαλία*, Inequality.

Hypochondrium chronicum, *ὑποχονδρείον χρονίον*, an Hypochondrium affected with an inveterate Disorder, *Coac. 292.* So, also, 1. *Prorrhet.* we read *τὰ ὑποχονδρεία μετέωρα χρονιώτερα*, Hypochondria which have been tumefied for a considerable Time.

HYPOCHONDRIACUS MORBUS.

The hypochondriac Disorder is none of the least considerable among those of the spasmodic Kind, incident to the nervous System: Because it, principally, exerts its Tyranny under the Ensign of Cartilage, and the spurious Ribs, in the Region of the *Hypochondria*, it is, for this Reason, called the hypochondriac Affection. If we thoroughly consider its Nature, it will be found to be a spasmodico-flatulent Disorder of the *Prima Viæ*, that is, of the Stomach and Intestines, arising from an Inversion or Perversion of their peristaltic Motion, and, by the mutual Consent of the Parts, throwing the whole nervous System into irregular Motions, and disturbing the whole Oeconomy of the Functions.

But, before we enter upon the History of this Disorder, we think it expedient to premise, that no Part or Function of the Body escapes the Influence of this tedious and long protracted Disease, whose Symptoms are so violent and numerous, that it is no easy Task either to enumerate or account for them; for, as, among acute Diseases, a Fever, in a particular manner, deserves the Name of Universal; so, among those of a chronic Kind, the same may be justly said of the hypochondriac Disorder. But, that we may proceed regularly, and trace the Beginning and Progress of this Proteus-like Disorder, we shall begin from the Cavity of the lower Belly, which is first of all subjected to the Tyranny of this Distemper. In the Beginning, therefore, of the Disorder, violent Tensions, and flatulent Inflation, of the Stomach and Intestines are perceiv'd, especially under the spurious Ribs, and that most generally in the Left Region of the Hypochondria, on which a pretty hard Tumor sometimes appears. As for the particular Disorders of the Stomach and Oesophagus, the Patient is afflicted with Nauseas, loathing of Food, and a varying Appetite, sometimes craving nothing, and at others somewhat more keen; the Aliments are ill-digested, and by that means acid and viscid Crudities are generated: The Stomach is affected with an oppressive and heavy Pain, especially after Meals: The *Oesophagus* is spasmodically constricted, and a limpid Mucus is frequently discharged out of the Mouth: Deglutition is difficult, and the Patient labours under a violent Cardialgia, a Heat of the Stomach, acid Eructations, Attempts to vomit, and Vomiting, the Matter of which is of so acrid a Quality, that Authors inform us, that the Teeth are not only benumbed, but, also, Linen Cloths corroded by it. In hypochondriac Patients I have, also, observed purely sebaceous Vomiting; with respect to which, the Reader may consult the *Miscell. Nat. Curios. Decad. 1. An. 3. Obs. 253.* Besides, in the Intestines, particularly the small ones, there are perceiv'd, about the Navel, violent and racking Pains, Contortions, lancinating Twitches, Rumbings, and Murmurings: Violent Gripes are, also, produced in the large Intestines. Sometimes the Patient is seiz'd with a Flux, and, at other times, with an obstinate Costiveness, accompanied with a Retention of the Flatulences, which, when discharged either from the Mouth or Anus, in some measure, relieve the other Symptoms, but are, soon after, copiously generated. The Patient often labours under frequent Desires of going to Stool; and, generally, Tubercles, or blind Hæmorrhoids, appear about the Anus, and a symptomatic Discharge of Blood sometimes succeeds: In some, the Discharge of the Urine is difficult and painful, and the Urine itself is thin, diluted, and white, sometimes with a copious sandy Sediment. Besides, this Disorder, when attended with a Pain in the Region of the Kidneys, often resembles the Stone.

Not does this Disorder affect the Abdomen alone, but, also, draws other Parts into Consent. Thus in the Breast there is

great Uneasiness, Constrictions, a violent Difficulty of Breathing, sometimes joined with an Oppletion of the Breast, Tremors, and Palpitations of the Heart. As the Disease increases, the Head is, also, affected; in the exterior Parts of which, Cephalalgias, Hemicranias, various constrictive Pains, accompanied with Rigidity and Immobility, and that particular Species of Pain called *Clavus*, are perceiv'd. In the interior Parts a Vertigo, a Ringing of the Ears, and a Difficulty of Hearing, are perceiv'd; the Eyes are dull, and the Sight dim: Some, also, see Objects double: The Eyes are painful and dry; the Tongue, especially in a particular Part, is frequently seiz'd with a burning and uneasy Pain; and the Saliva is copiously discharg'd: At last the animal Functions are impair'd, the Mind is, without any Reason, or by the slightest Cause, provok'd and thrown into violent Commotions. Hence Restlessness, Anxiety, Terror, Sadness, Anger, Fear, Diffidence, idle Whims, and irregular Workings of the Fancy; the Memory is impair'd, the Reason weaken'd, the Sleep turbulent, uneasy, and full of Terror. Some Symptoms of this Disorder affect the whole Body, which is frequently overspread with intense Heats, or profuse Sweats; the Strength is lost, and the whole Body, becoming languid, and averse to Labour, gradually wastes away. The Limbs are frequently affected with a pricking and lancinating Pain. At last, all the Secretions and Excitations, especially those of the sanguineous Kind, are perverted and disorder'd. But 'tis hardly possible to enumerate all the various Symptoms of this Disorder, which are different in almost every Individual they torment.

The Accounts of this Disease, receiv'd from the most ancient Physicians, correspond with those we have already given. Thus *Galen*, in his First Book *de Locis affectis*, furnishes us with a Passage of *Dioscorides*, in which hypochondriac Disorders of the flatulent and melancholic Kind, arising from the Stomach, are mentioned; and which, for the sake of its Brevity and Perspicuity, deserves to be transcribed: "The Patient, says he, after eating, especially such Aliments as are of difficult Digestion, or capable of exciting Heats, spits large Quantities of Moisture; is afflicted with acid Eructations and Inflation; he perceives an Exaltation in his Præcordia, and a Fluctuation when he checks the Eructations. Sometimes, also, violent Pains of the Abdomen are perceiv'd, which, in some, reach above the Diaphragm, but are allay'd, when the Aliments are concocted. But, as soon as the Patient eats again, he is afflicted in the same manner. These Pains sometimes, also, rack the Patient, when fasting, and after Supper. If at any time the Patient vomits, the Matter thrown up consists of crude Aliments, and a Phlegm, which is bitter, hor, and acid to such a Degree, that the Teeth are benumb'd by it." This Author is of Opinion, that because cold Substances afford Relief, the Disease arises from the Heat of the Internal Parts.

Before we quit the History of this Disease, we shall lay down some Cautions very necessary to be known: As, then, this Disorder has several Degrees or Stages, which direct us in forming our Prognostics; so it has, also, Exacerbations, which amount to pretty violent Paroxysms; for, tho' hypochondriac Patients are never perfectly well, yet their Symptoms are far more violent in the Winter, Autumn, and cold Weather of any kind; whereas the hotter the Atmosphere is, the better State of Health they enjoy. Women subject to this Disorder are observ'd to be most afflicted by it at the time their *Menses*, which are generally deficient, ought to flow. It is, farther, worth our Observation, that hypochondriac Patients are rarely afflicted with continual, epidemical, and contagious Fevers, or the Plague, but remain free from these and many other raging Distempers. The Reason of this surprising Phenomenon seems to be this, that these Patients have, generally, in their *Prima Viæ*, a large Quantity of acid and viscid Crudities, which resist the Efficacy of the Contagion, which operates by the Fineness of the sulphureous Parts; that are in a manner fixed by these Crudities. Hence it, also, happens, that old and melancholic Patients are rarely affected by acute Diseases, or even those of a contagious Nature.

We find from Experience, that this Disorder is most incident to young Persons, and those arriv'd at their full Growth, that is, from about the twentieth to the fiftieth Year of their Age; after which this Disorder generally changes itself into arthritic Pains, the Gout, a Pain of the Loins, sciatic Pains, the Stone, a Cachexy, a Scurvy, the *Morbus Niger*, Obstructions of the Viscera, an Hæctic, and other formidable Disorders. Those, also, who are of a spongy, soft, lax Habit, and have small Vessels, are more subject to this Disorder, than those who are of a more firm and robust Constitution. Those, also, are more subject to it than others, who are naturally languid, or who have received from their Parents an hereditary Disposition to it; as, also, those who by an imprudent Method of Living, or previous Disease, have their natural Strength and Vigour greatly impair'd. Those are, farther, in a peculiar manner, subject to this Disorder, who lead a sedentary Life, and indulge themselves too much in Study, continual Meditations, and Lucubrations. Hence the Disorder is very common among the *Literati*. For the same Reason the Female Sex are observ'd to be afflicted with this Disorder, though not so frequently as Men. But the

hypochondriac Disorders of Women are falsely confounded with those of the hysteric Kind, and pass under the same Name. See HYSTERICA.

Both Antients and Moderns have err'd in assigning the Seat of this Disorder: The former, as they frequently observ'd a tense inflat'd Tumor under the spurious Ribs on the Left Side, where the Spleen is situated, imagin'd that the Seat of the Disorder was in this Organ. This Opinion is espoused by *Rhodius* and *Heurnius*. But besides that the Spleen, in consequence of its Structure, is not susceptible of that acute and lancinating Pain perceived by hypochondriac Patients, we are taught by Experience, and the Dissection of Carcasses, that in hypochondriac Patients the Spleen is often found without any Disorder. *Sylvius*, in his *Dissert. de Usu Lienis*, *Hoefferus*, de *Hercule Medica*, Lib. 3. Cap. 3. and *Hochstederus*, Dec. 5. are of my Opinion. We are not, however, to deny, that there may, in this Disorder, be an Infarction of the Spleen, though this Infarction is neither the Cause of the acute Pain, nor the Spleen the Seat of the Disorder.

Some of the Moderns place the Seat of this Disorder in the *Vena Portæ*, and its Ramifications, and think that the Blood stagnating there is the sole and genuine Cause of all the Symptoms, which, in Men, have a Relation to the hæmorrhoidal, and in Women to the menstrual Discharge; and that when these Discharges are promoted, the Symptoms cease. But though 'tis not to be denied, as we shall afterwards observe, that Irregularities of these Evacuations, and the consequent Stagnation of the Blood, especially in those Ramifications which are distributed through the nervous Coats of the Intestines, may often prove the secondary Cause of this Disorder; yet we must observe, that this is not always the sole and only Cause; for which Reason neither the Seat of the Disorder, nor the Nature of the Symptoms, are to be sought for here; for frequently there is no Disposition to an hæmorrhoidal Discharge in hypochondriac Patients. And frequently Blood is copiously discharg'd from the Veins of the Anus, without any subsequent Relief of the Disorder, as we are inform'd by *Rhodius Centur. 2. Obs. 93. Claudius, Consil. 89* and *Montanus, Consil. 246*.

But I am of Opinion, that the true and genuine Seat of this Disorder is lodged in the alimentary, membranous, and highly nervous Canal, which constitutes the Stomach and Intestines. This Canal consists principally of four Coats: The innermost, known by the Name of villous, is furnished with erect and pervious Villi, like Papillæ. The Coat next to the villous is the nervous Coat. The third is the muscular Coat, somewhat stronger, consisting partly of a few longitudinal, and partly of annular Fibres, and containing a large Number of Blood-vessels. The outermost is the membranous Coat. There are three cellular Contextures between these Coats, one betwixt the villous and nervous Coat, another betwixt the latter of these and the muscular Coat, and a third between that and the membranous Coat, commonly called the *Tunica Cellulosa* of *Ruysh*. By the Strength of the muscular Coat, and its annular fleshy Fibres, these Parts are furnished with a kind of vermicular or peristaltic Motion, which consists in a gentle Constriction and Relaxation from the superior to the inferior Parts. The natural Strength and Soundness of this Motion contribute not a little to the Preservation of Health; for, by its means, the Digestion of the Aliments is duly carried on; the Secretion of the Bile, and pancreatic Juice, assisted; the Preparation of a laudable Chyle, and its Propulsion into the lacteal Vessels, promoted; by which means the other Juices of the human Body are render'd, at once, balsamic and spirituous. Besides, by this peristaltic Motion of the Intestines, the Crudities, Sordes, flatulent and aerial Vapours, left by those digested Aliments, which are depriv'd of a laudable Juice, are propell'd through the alimentary Duct, and eliminated by the Anus. The Tone of these Parts, when sound, and in its natural Degree, greatly facilitates and assists the free and equable Circulation of the Blood, and thus proves the principal Means by which the Functions, by Nature assign'd to the Intestines, may be duly perform'd.

After premising these things, we shall find it more easy to assign the immediate Cause, and account for the various Symptoms with which this Disease is attended. The Cause, then, of this Distemper consists in a preternatural State of this peristaltic Motion; when, for Instance, it is partly in one Place impair'd and destroy'd, partly in another too intense, and strong, and every-where inverted, that is, perform'd from the inferior to the superior Parts; for such a Relaxation, and spasmodic Distention, existing at one and the same time, in the Intestines, but succeeding each other in different Parts, constitute the true and genuine Nature of the hypochondriac Disorder, and lay an excellent Foundation for accounting for all its Symptoms. This Opinion is confirm'd not only by Experience, but, also, by the Authorities of the most learned and celebrated Physicians, such as *Ortobius*, *Etmuller*, *Needham*, *Hedelius*, and *Coringius*, in his *Dissert. de Morbo Hypochondriac. Sect. 11*. Let us, therefore, try, whether, from this Cause, we can assign rational and satisfactory Reasons for the numerous and direful Train of Symptoms with which this Disorder is accompanied.

The immediate Consequences, therefore, of a weakened peristaltic Motion, are, a disturb'd Digestion, an impair'd Chylification, and an obstructed Excretion of the recrementitious Sordes. Hence these remain in the Intestines, and their acid and viscid Crudities are, in a particular manner, insinuated into the Flexures and Foldings of them, and a large Quantity of Flatulences is generated. Hence it happens, that these Sordes, by their long Stay in the Intestines, recede from their natural Qualities, and contract a certain Acrimony, by which they vellicate the nervous Coat of the Intestines, and excite spasmodic Strictures. This Canal of the Intestines is, therefore, so violently constricted in some Places, that it cannot transmit the Flatulences. These Flatulences fluctuate in that Part of the Canal, which is free from the Spasms, and surprisingly distend it; and this Circumstance accounts for the Rumbings, Murmurings, and uneasy Inflation. Besides, the Flatulences, not finding a Passage downwards, by reason of the Spasms, are forced farther upwards; and, in this Case, they principally possess the Colon, and are pent up in its Flexures, which are very numerous. For we must observe, that the Colon, especially where it forms Flexures, under the spurious Ribs in both the Hypochondria, and coheres with the *Saccus Adiposus* of the Kidneys, is far narrower than in its Middle. But here, especially on the Left Side, it is frequently and violently distended with Flatulences, and elevated into a painful Tumor, which is falsely ascribed to a Fault of the Spleen. When these Spasms are continued, the peristaltic Motion inverted, and the Disorder increased, these Vapours penetrate into the Cavity of the Stomach, which they surprisingly distend, and induce an uneasy Inflation perceptible by the Senses. The Stomach, being thus preternaturally distended, hinders the free Motion and Descent of the Diaphragm: Hence the Difficulty of Breathing arises. And, which is worst of all, the Left or both Orifices of the Stomach are frequently constricted; by which means the Vapours are pent up in its Cavity, and produce terrible Uneasinesses of the Præcordia, and Cardialgias; which are considerably abated and mitigated when the Constrictions cease, and the Vapours are discharged in Eructations.

These are the Effects produced by the Flatulences, which, in consequence of the destroyed peristaltic Motion of the Stomach and Intestines, are, at once, copiously generated, and hindered from a due Discharge. The Disorders of this kind were, by the *Greeks*, call'd *τὰ παθήματα φυσώδεια*. Let us now inquire, what Symptoms are produced by the Crudities left in the Stomach, the Duodenum, and the Foldings of the Colon, by the Aliments taken and dissolved in the Stomach, in consequence of an undue peristaltic Motion. These Crudities, by reason of their long Continuance, especially in the Duodenum, where they meet with a large Quantity of the Bile and pancreatic Juice, are soon corrupted, become accefcant, and assume an high Degree of Acrimony. Hence, by vellicating the Parts, they prove the Cause of Spasms, tense Gripping, lancinating and corroding Pains, which violently afflict the Region of the Stomach, and the rest of the Abdomen, especially about the Navel; by which means they lay a Foundation for a perpetual and uninterrupted Generation of fresh Flatulences. From these Sordes, also, arise the Keanness of the Appetite, Nauseas, Cardialgias, Inclinations to vomit, Eructations, and acid Vomitings; and since in every Digestion they are put into a more violent fermentative Motion, hence the Reason is obvious, why hypochondriac Patients are worst after feasting sumptuously: And since, in consequence of so continual a Stimulus of the Intestines, their alternate Spasms, and flatulent Distentions, are produc'd, hence the Reason is obvious, why hypochondriac Patients are costive, and that, sometimes, to such a Degree, that the fine Exhalations cannot be discharged, much less the Fæces.

It still remains, that we enumerate the Disadvantages accruing to the Circulation of the Blood, from the disorder'd peristaltic Motion: For, as, when this latter is in its due and natural State, a free and equable Circulation of the Humours is performed thro' the Intestines; so, when the peristaltic Motion is either impair'd or destroy'd, the Circulation of the Blood thro' them is, of course, render'd proportionably slower, and more unequal; for in one Part of the Intestines there is a Spasm, which, at once, constricts and compresses the Blood-vessels; in another Part, Flatulences distend and expand the Sides of their Coats, and, by that means, violently compress the adjacent small Vessels. By this means, the Return of the Blood thro' the hæmorrhoidal Vein is more retarded, since the Situation of that Vein is perpendicular. Hence there every-where arise Stagnations of Humours in the Coats of the Intestines, which, as they may, for the Reason already given, be Symptoms attending the Flatulences, so they generally prove the Causes of them, as we shall afterwards shew. First, it frequently happens, that the Blood is accumulated about the Extremity of the Rectum, and elevated into a Tubercle, called the blind Hæmorrhoids; and, also, frequently bursting forth with Force, terminates in an hæmorrhoidal Discharge; which, in this Case, is symptomatic. From this Stagnation arise, also, the Suppressions both of the *Menfes* and *Hæmorrhoids*, which always happen as the Disorder increases. And from this Stagnation we may, also, account for the bloody and

and black Discharges by Urine, Vomit, and Stool, which Authors, of great Veracity, affirm to have been made by Persons labouring under violent Degrees of this Disorder. With respect to such an Evacuation by Vomit, the Reader may consult *Riolanus Anthropol. Lib. 2. Cap. 2.* An Instance of one by Stool may be seen in *Adrianus Spigelius's Anatom. Lib. 6. Cap. 5.* and in *Solanander, Consil. 7. Sect. 2.* And I myself, says *Hoffman*, saw the Urine of an hypochondriac Patient tinged with an intensely red Colour.

These Things happen in the intestinal Canal, but, after this, the Disorder growing worse, the most terrible Symptoms arise thro' all the Body, and disturb all its Functions. This happens in consequence of the Consent between all the Nerves and nervous Parts, by means of which the Spasms of the Intestines are propagated to other, and even the most remote Regions. Where there is a spasmodic Stricture of the Nerves, there the Circulation of the Blood is unequal. Hence the Reason is obvious, why in inveterate hypochondriac Disorders there are spasmodic Strictures, and a slow Circulation through the whole Body. Thus the Parts of the Abdomen, adjacent to the Intestines, are first constricted; and, in consequence of the Disorder of the Bladder, and its Sphincter Muscle, and of the Kidneys, the Urine is discharged thin, diluted, and aqueous. By means of the violent Convulsions of the nervous Membranes surrounding the Kidneys, Pains resembling those of the Stone are produc'd. The Spasms convey'd to the Breast induce its Constrictions, together with Tremors and Palpitations of the Heart. When these Spasms are conveyed to the Head, Pains of various Kinds are brought on; and, when they are propagated to the external Parts, they produce Coldness of the Extremities, and frequent Horripilations.

Since, therefore, in the hypochondriac Disorder, a thick and impure Chyle is generated, Spasms produced in the whole Body, the Circulation of the Blood render'd unequal, and the salutary Excretions by Sweat, Urine, and Stool, obstructed, a scorbutic Dyterasy must of course be gradually increased, and thus the hypochondriaco-scorbutic Disorder is formed. If, in Women, the Menses are suppress'd, and by this means the Blood, or seminal Humours, become stagnant about the Uterus, and Parts subservient to Generation, especially when a salacious Temperament concurs, then hysteric Fits are readily complicated with hypochondriac Disorders; and the hypochondriaco-hysteric Affection is produced. When thick and viscid Humours are, by the Spasms of the Lower Belly, copiously convey'd to the superior Parts and Head, where they circulate slowly in the Vessels of the Brain; the animal Functions are destroyed; the Senses languish; the Force of the Memory, and Brightness of the Genius, are impair'd; the Patient is prone to Sadness, Diffidence, and Tears; foolish Fancies, and vain Ideas, arise in the Mind; and thus, by slow Degrees, an hypochondriac Melancholy is produced.

We now come to consider the direct and immediate Causes of this Disorder: Of these the most considerable, and frequent, is a Stagnation of the vital Juices between the nervous and muscular Coats of the Intestines, which is, most frequently, owing to their slow Circulation through the Liver: Now the Liver is a vascular Organ, furnish'd with more Veins than Arteries; the two most considerable of the former are the Vena Cava, and the Vena Portæ: Now it is certain, that the latter of these, from which the whole Intestines, Stomach, Mesentery, Spleen, Pancreas, and Uterus, receive, if not all, yet, at least, most, of their Ramifications, by a peculiar Mechanism, receives the Blood returning from all the Viscera of the lower Abdomen, and, discharging the Office of an Artery, but without a Pulsation, conveys it into the Liver: Hence the Reason is obvious, why, in a sound State, the Circulation of the Blood is slower through the Liver, than through any of the other Viscera of the Body: Hence it is no hard Task to conceive, why, in a preternatural and disorder'd State, the Circulation of the Blood through this Organ should be first of all retarded, and obstructed: Now, when the Circulation is retarded here, the Blood, according to the Laws of Hydraulics, must, necessarily, regurgitate to those Viscera, from which it was before convey'd to the Liver: For this Reason it greatly distends the Vessels of these Parts, especially the Vessels of the Mesentery and Intestines, whose soft Coats are not capable of making great Resistance. Thus, from this slow Circulation of the Blood through the Liver, arises its Stagnation in the Intestines, which destroys the due Equilibrium between the Solids and Fluids, and is, as it were, the immediate Cause which destroys the Tone and Strength of the peristaltic Motion, a Circumstance which produces the hypochondriac Disorder.

This is the Reason, why, in the Carcasses of those who have died of the hypochondriac Disorder, degenerated into some other Disease, such Phenomena appear, as proceed partly from a faulty Circulation of the Blood through the Abdomen, and partly from Causes which tend to render this Circulation still more faulty. Thus *Guarimonus, in Consil. 48.* informs us, that, on dissecting the Body of an hypochondriac Patient, he found the Veins of the Mesentery obstructed, and so dilated, that they, in a manner, resembled Intestines. *Ludovicus Mercatus, Tom. 3. L. 1. C. 7.*

tells us, that he found the meseraic Vessels of an hypochondriac Patient highly varicose. *Brunner, in Consil. 7.* informs us, that he found a great Quantity of viscid Blood in the meseraic Veins. *Rhodius, in Cent. 2. Obs. 76.* tells us, that he found the Colon scirrhus. *Welschius, in his Disp. de Malo hypochondriaco,* tells us, that he found the whole Colon distended with Flatulences; but so contracted at its Insertion into the Intestinum Rectum, that it seem'd to be, as it were, grown together. *Blasius, in his Comment. in Veslingium,* informs us, that in some hypochondriac Patients the Liver has, after Death, been found incredibly large. And I myself saw the Pancreas obstructed in a Person who died of the hypochondriac Disorder. *Higmore, in his Disquis. Anatom. and Harder. in Obs. 59.* inform us, that they found the Pancreas scirrhus and ulcerated in hypochondriac Patients.

Among the remote Causes which greatly contribute to the slow Circulation of the Blood through the Liver, and its consequent Stagnation in the Viscera of the lower Belly, and, principally, the Intestines, the most considerable are Diminutions and Suppressions of the Menses in Women, and of the Hæmorrhoids in Men.

Thus, it is certain, from Observation, that those Persons, who, when young, have been much subject to large Hæmorrhages from the Nose, readily fall into this Disorder, it, at a more advanced Age, they are seiz'd with the Hæmorrhoids, which generally suppose an hereditary Disposition, and greatly facilitate the Circulation of the Blood through the Abdomen and Liver, and these Hæmorrhoids are, by any means, suppress'd; for the redundant Blood, being, in consequence of this Suppression, retain'd, is accumulated in the Abdomen, and, consequently, for the Reason already advanced, circulates more slowly thro' the Liver, and, regurgitating to the Intestines, undergoes a deplorable and injurious Stagnation. The same holds true with the menstrual Discharge, which, when diminish'd, or suppress'd, produces an Accumulation of Blood in the meseraic Artery, where it attempts its Discharge by the hæmorrhoidal Veins; and, this being denied, regurgitates to the Intestines, and renders the Circulation of the Humours proportionably more difficult. Thus, in the Female Sex, hypochondriac Disorders are frequently generated, which may be easily complicated with those of the hysteric kind, if, at the same time, a Stagnation of the Blood should happen about the Uterus. In Cases of this Nature, a speedy and seasonable Restitution of these Evacuations proves the most certain and natural Cure of hypochondriac Disorders.

But there are still a great many other Causes, which may disorder the peristaltic Motion of the Intestines, and, by that means, generate the hypochondriaco-flatulent Disorder. Among these, the most considerable is what we call *Hereditary Disposition*, which consists in a weak Constitution of the nervous Parts, especially of the Intestines, convey'd from Parents to Children, by means of which the Intestines are highly susceptible of irregular Motions. To this we must, also, ascribe the Smallness of the Veins, and the lax and spongy Habit generally observ'd in hypochondriac Patients. As this hereditary Disposition is the Foundation of many Diseases, so it, in a particular manner, contributes to the Production of the hypochondriac Disorder, and the Hæmorrhoids. Thus, hypochondriac Patients propagate Children subject to the same Misfortune; and those Mothers, who, during Gestation, have been affected with hysteric Fits, or indulged themselves in Sallies of Passion, bring into the World Children, who, when advanced in Years, are, upon the slightest Occasion, subject to hypochondriac and flatulent Disorders.

Some of the Non-naturals, also, contribute not a little to the Generation of this Disorder. Thus, a cold Air is of considerable Efficacy in the Production of this Misfortune; since, by constricting the external Surface of the Body, it forces a larger Quantity of the Humours inwards, which, the more they are accumulated, the more readily they become stagnant. A moist State of the Atmosphere relaxes the Tension of the moving Fibres; a Circumstance by which all the Diseases, arising from a Want of due Tone in the Parts, are both generated and increased. Cold is, in a particular manner, prejudicial to the Intestines, when too freely admitted to the Abdomen, or Feet, the near Connection of which last with the Intestines is sufficiently obvious from this, that delicate Persons are forthwith seiz'd with Gripes, and Flatulences of the Intestines, if they walk barefoot upon cold Floors; as *Forestus, Lib. 10. Obs. 10.* observes of his Brother. Hence the Reason is obvious, why hypochondriac Patients enjoy better Health in Summer, than in Winter; as, also, why, in Northerly Climates, this Disorder is far more frequent, than in those Countries which are bless'd with a more serene and temperate Air.

Besides the Air, coarse and thick Aliments, also, prove the antecedent Cause of the hypochondriac Disorder. Crude, acid, flatulent Aliments, Pulses, Summer-fruits, Preparations of Milk, Salads, Cakes, especially when recent and hot, generate a thick and impure Chyle, leave many Sordes in the Primæ Viæ, and remarkably disorder the peristaltic Motion of the Intestines, especially in Persons who do not use sufficient Exercise. Ali-

ments either not sufficiently masticated, or greedily eaten, by Persons whose Stomachs are weaken'd by previous Diseases, are highly prejudicial, and contribute much to the Production of this Disorder. For this Reason *Blancard, in Prax. Cap. 61.* affirms, that this Disorder is highly incident to the Inhabitants of *Friseland*, in consequence of their Abuse of Peas, Preparations of Milk, and Sallads. And *Simon Paulli, in his Quadripartit. Botan.* gives us an Instance of a Woman, who became hypochondriac, by eating Bread immediately taken from the Oven. Drink may, upon a double Account, produce this stultent Disorder; either when it is taken too liberally, or taken cold when the Body is hot. In the latter Case, the Misfortune is almost instantaneously produced: In the former Case, the Disorder is contracted by reiterated Acts, and proves a sufficient Punishment for the past Indulgence in Gluttony. The Drink may, also, contribute to the Production of this Misfortune, if its Quantity is too small, or too large; or if it is aqueous, too thick, or feculent.

This Disorder frequently arises from an idle and sedentary Life, which is often the only Cause of the Disease: For, as due Exercise not only increases the Strength and Motion of the solid Parts and Muscles, but, also, renders the Humours more fluid; so, upon an Intermission of this Exercise, the Strength becomes languid, the Elasticity of the Fibres is impair'd, and the Humours, in consequence of their undue Circulation, become thick. This sedentary Life contributes so much the more effectually to the Production of this Disorder, if immoderate Lucubrations, Meditations, and protracted Studies, are join'd with it. Any of these Causes contributes considerably to impair the Elasticity of the solid Parts, especially when they, who indulge themselves in these things, hang their Bodies in a sleeping Posture over their Books; and are so sedulous, that they are intent on their Studies amidst the most delicious Banquets. Hence it is, that those Women who indulge themselves in Idleness, and drink little, as, also, studious Men, are highly subject to hypochondriac Disorders.

The Passions of the Mind, also, contribute considerably to the Production of this Misfortune; but the most considerable and powerful of these are long Grief, Care, and an anxious and uneasy State of Mind. The Efficacy of these, in destroying the Strength of the solid Parts, and impairing the Digestion, is sufficiently obvious from Experience. Thus *Horstius, in L. 4.* gives us an Instance of a Man, who, for the Death of his Son, griev'd so long, that he became hypochondriac, and, at last, melancholy. And *Pechlinus, in Obs. 31.* informs us of a certain Taylor, who was so griev'd for his Misfortunes, that he became subject to violent Flatulences, and hypochondriac Disorders. A salacious wanton Turn of Mind, and its natural Consequence, immoderate and too early Venery, are of so great Efficacy in weakening the Strength of the Stomach and Intestines, that I have frequently known hypochondriac Disorders produced by this means.

It, also, frequently happens, that those who are weakened by previous Diseases, especially when preposterously cured by astringent Medicines, Opiates, and Narcotics, as, also, Women debilitated by hard Labours, are afflicted with this Disease; for in these the Tone of the Stomach and Intestines, being highly languid, is easily destroy'd by the smallest Error in Regimen, or by giving way to the Transports of Passion. In like manner, I have often observ'd Persons seiz'd with Colics, Gripes, Diarrhoeas, and Dysenteries, who, having the Misfortune to have their Disorders treated with Astringents, have gradually fallen into violent Flatulences, and hypochondriac Affections. I have, also, more than once observ'd the same Misfortune produced by stopping a Gonorrhoea, or Fluor albus, too soon, by means of Magistery, and Sugar of Lead. A Case of this kind may be seen in *Hoffman, Consult. ac Respons. Medic. Tom. 2. § 3. Cap. 99.* And nothing is more common, than the Production of hypochondriac Disorders by the preposterous Suppression of intermittent Fevers, or the unskilful Use of the *Peruvian Bark* under them; especially if the Patient abounds with thick Humours, is addicted to a sedentary Life, or subject to Spasms of the *Primæ Viæ*. *Horstius, in Lib. 10. Obs. 28.* furnishes us with an Instance of this kind. And I myself have often seen hypochondriac Affections brought on by the Suppression of tertian Fevers. Women, also, frequently become hypochondriac after difficult, or ill-managed Labours. And, in general, whatever Diseases, whatever Cures, or whatever Causes, are capable of injuring or destroying the peristaltic Motion of the Stomach and Intestines, are justly class'd among the productive Causes of hypochondriac Disorders. Among these we must, also, class Purgatives, and drastic Emetics, frequently exhibited, especially Preparations of Aloes, and the unskilful or excessive Use of Pills which contain Aloes; by which the Humours are invited to the Anus, and, being denied a Discharge, become stagnant there.

It now remains, that we distinguish this Disorder from some others, in order to prevent their being confounded with each other, and then subjoin something with respect to the Prognostics. The Difference, then, between this Disorder and hysterical Fits is specified under the Article *HYSTERICA AFFECTIO*.

We have already observ'd, that in this Disorder the peristaltic Motion of the Intestines is inverted; but since this Inversion is, also, the Cause of some other Disorders, we must inquire, what Difference there is betwixt these, and that of which we now treat. Thus, in Vomiting, and the Iliac Passion, the peristaltic Motion is inverted; but, in Vomiting, this Inversion begins from the Pylorus, or, perhaps, the Duodenum, and is continued thro' the Stomach and Gullet to the Fauces; whereas, in the Iliac Passion, the Motion of the whole intestinal Canal, from the Sphincter of the Anus to the Orifice of the Oesophagus, is inverted by violent Spasms and Convulsions, which are accordingly succeeded by a Vomiting of the Fæces. But it is quite otherwise in the hypochondriac Disorder; for in it the Inversion of the peristaltic Motion is only in some Parts of the Intestines; and those which are free from it, afford a Seat for the stultent Vapours. Hence we are enabled to account for the Rumbings and Noises which are sometimes pretty loud in the Abdomen; as, also, for the Flatulences carried up and down through all the Parts of the Abdomen, and to the Sides, especially in the Morning, or after intense Application of Mind, without any subsequent Discharge of Wind, or of the Fæces, by the Anus; for these Vapours, being pent up in particular Parts of the Intestines, are soon after driven, by the Spasms, with a considerable Impetus, to other Parts; which Circumstance sufficiently accounts for the Noise and Rumbling.

The hypochondriac Disorder is, also, different from the Colic, which frequently succeeds it; for, as the former is a long-protracted Disorder, which sometimes seizes, notwithstanding the Observation of the most accurate Regimen; so a Colic is shorter, more transitory, generally arises from some Fault of the Aliments; and is accompany'd with Gripes of the Intestines, and an obstinate Constipation, upon the Removal of which, it directly ceases; whereas the hypochondriac Disorder is accompany'd with far more numerous and violent Symptoms. Hypochondriac Affections ought, also, to be carefully distinguish'd from the Stone in the Kidneys; for, tho' the former is frequently attended with Pains resembling those of the latter, yet no Excretion of small Stones ensues; and if, perhaps, in the Urine, any Sand should be observ'd, it after some time adheres to the Bottom of the Pot, like that Matter which is discharged in consequence of a scorbutic Dyscrasy of the Fluids; whereas, in genuine nephritic Pains, the Urine is, immediately after its Discharge, observ'd to contain Sand, and the Case is known by the Evacuation of small Stones. Nor is a simple Flatulency, which is suddenly produc'd by Aliments of hard Digestion, and may be easily remov'd by the Exhibition of Carminatives, to be forthwith taken for the hypochondriac Disorder, tho' the former may indicate the Beginning of the latter.

As for the Prognostics of this Disorder, recent, and if it is left to itself, it is rather troublesome, than speedily fatal: But, when inveterate, it is not to be cured without great Difficulty; and when the Cure is preposterously attempted, or a bad Regimen observ'd, it generally is accompany'd with a violent and formidable Train of Symptoms, such as Obstructions and Scirrhuses of the Viscera, Cachexies, Dropsies, Hæctics; and, by a Translation, convulsive Asthmas, Madness, incurable Melancholy, and Polypuses, which prove mortal: A memorable Instance of which last, we are furnish'd with by *Zachias, in Lib. 3. Cap. 15.* If the hypochondriac Disorder is supported by Suppressions of the Menstrues, or Hæmorrhoids, the Misfortune is often totally remov'd by a seasonable Restitution of these Disorders, either by Nature or Art. But great Care is to be taken, lest, when the Disease is long protracted, we should take a symptomatic hæmorrhoidal Discharge, for one of the critical and salutary Kind; for, by the former, the Disease is far from being reliev'd, whereas the latter is generally highly beneficial and advantageous.

THE CURE.

The Cure of a recent hypochondriac Disorder is easily and soon perform'd; but when the Disease is so deep-rooted, that the Circulation of the Humours thro' the whole Body is disordered and irregular, and the Tone of the solid Parts almost totally destroy'd, these Causes of themselves not only require laborious, continued, and long-protracted Measures for their Removal, but, also, the incredible Perverteness of the Patients, renders the Cure more difficult; for, in consequence of the slow Circulation of the thick Blood thro' the Brain, they are inclined to continual Dread and Diffidence; for which Reason, they are always afraid not only of the greatest Danger, but also of Death itself. Besides, being fickle, giddy, and unconstant, they apply to many Physicians, and make Trial of various Medicines; by which means their State is render'd still worse. The Physician, therefore, who attempts a Cure of this Disease, should first order the Person, labouring under it, to be constant and patient; and then to pursue the following Intentions of Cure:

First, To evacuate the stultent Matter, and to correct, and gradually, eliminate, the acid, viscid, and bilious Sordes of the *Primæ Viæ*, which supply the Disorder with perpetual Nourishment.

Secondly, After allaying the Spasms to reduce the inverted peristaltic Motion of the Intestines to its natural State, and, if too languid, to corroborate it, that the Concoction of the Aliments may be duly carry'd on, and a rich and laudable Chyle, and other Humours generated.

Thirdly, To discuss the stagnant Juices, render the Circulation of the Blood thro' the Abdomen, and all the other Parts of the Body, equal; and to purge the Humours from Acrimony, by facilitating the cutaneous and urinary Excretions. And,

Lastly, To corroborate the whole nervous System.

The first of these Intentions is principally to be answered, during the hypochondriac Paroxysms, or when the Symptoms are preternaturally exasperated, which generally happens after violent Commotions of Mind, Errors in Regimen, or in the Winter or Autumn. In order, therefore, to derive the inverted Motion of the Intestines downwards, allay the Spasms, expel the Flatulences, and eliminate the Sordes, no Remedy is more infallible and efficacious than Clysters which may be prepar'd of emollient Herbs, a Decoction of Oats, of Chamomile-flowers, of the Tops of Yarrow, the Oils of sweet Almonds, Dill, Chamomile and Linseed; with an Addition of the carminative and discutient Species, the Seeds of Dill, Caraway, and especially Cumin. The Cure is to be begun with an Injection of these Clysters, and, as the Spasms of the Intestines frequently prevent their due Effects, they are to be often repeated, especially if the Fæces are indurated; in which Case 'tis also expedient to exhibit large Quantities of the Oil of sweet Almonds, internally, or to order the Patient to drink liberally of Water-gruel. Nor is the internal Exhibition of demulcent and gently laxative Medicines to be neglected; the most efficacious of which are, Infusions prepar'd of Manna, Rhubarb, and Cream of Tartar; with an Addition of Oil of Juniper. Thus *Rhodus*, in *Cent. 2. Obs. 2.* informs us, that he knew the hypochondriac Disorder successfully remov'd by the frequent Exhibition of Rhubarb.

A speedy and singular Relief is, also, afforded by the frequent Exhibition of a Dram, or more, of the neutral Salts obtained from the *Epsom*, *Sedlitz*, and *Caroline* Waters, if exhibited with some proper Absorbent, Rhubarb, Orange-peel, and Nitre, and drank in a large Quantity of pure Water. Very happy Effects are, also, produc'd by Raisins impregnated with Rhubarb, laxative Apples boil'd, or, if the Stomach can bear them, raw; and laxative Prunes, which have frequently render'd the Body soluble, when all other Purgatives have been tried in vain, as we are inform'd by *Thonerus*, in his *Observat.* Great Benefit is also obtain'd from mild balsamic Pills; such as the *Pilulæ Solænantri*, the *Pilulæ Cratonis*, the *Pilulæ Aloephanginæ*, the *Pilulæ Marocostinæ*, the *Pilulæ Tartareæ Schroederi*, or the *Pilulæ Becherianæ*, the *Pilulæ Stahlianæ*, or the balsamic Pills, interposing an aperitive Powder between each Dose. Or, if there is a Load of acid Fæces in the Intestines, Crabs-eyes, or the *Magnesia Alba*, alone, generally render the Body soluble. In the Intervals between the Paroxysms, the Body is, also, to be kept soluble, and the Generation of Sordes prevented, by an alternate Exhibition of these Medicines, every eighth or fourteenth Day, as the State of the Patient shall require.

After the Body is render'd soluble, the next Intention of Cure is, to correct and qualify the acid and bilious Sordes lodg'd in the *Primæ Viæ*, and especially in the Duodenum. This Intention is most effectually answered by absorbent, precipitating, antispasmodic, and gently carminative Powders, which not only mitigate the Spasms, but by corroborating the Intestines, powerfully expel the Flatulences. The Powders of this kind may be prepar'd of Crabs-eyes, Mother of Pearl, the *Pulvis Marchionis*, purified Nitre, prepar'd Amber, Cinnabar, vitriolated Tartar, the *Arcanum Duplicatum*, and a little Castor, and exhibited in antispasmodic Waters, especially that distil'd from Chamomile-flowers, and Ale prepar'd of Wheat. But these Powders will be far more efficacious, if about twenty Drops of the Anodyne mineral Liquor are exhibited with them. This Intention is, also, promoted by such Infusions, as by a Diaphoresis carry off the Sordes lodg'd in the Mass of Blood, when supt in Bed in the Morning. The most usual Ingredients for composing these, are the Herbs Baum, Paul's Betony, Betony, Agrimony, Scordium, *Cardus Benedictus*, the Tops of Yarrow, the Flowers of Daisy, and common Chamomile, Fennel-seed, and stellate Anise.

In order to corroborate the Stomach, and restore its digestive Power, we may call in to our Assistance balsamic, and gently carminative Essences. But we must take care that they are not too spirituous, and by that means capable of throwing the Humours into more violent Commotions; which Misfortune infallibly attends the Exhibition of *Aqua-vitæ*, and the stomachic Essences generally us'd for this Purpose. But we may more safely use the Essence of Orange-peel duly prepar'd, the Tincture of Tartar, the *Spiritus Nitri Dulcis*, or Elixirs prepar'd of balsamic Herbs or Roots, with some lixivial Menstruum; such as the *Elixir Viscerale Stomachicum*, which I have from long Experience found to be highly beneficial in flatulent and hypochondriac Disorders; but the Use of these must be persisted in for a considerable time. In hypochondriac Paroxysms, no

small Advantage is reap'd from washing the Feet in Baths moderately warm, which invites the Humours to the external Parts, and relaxes the Spasms of the lower Belly. Baths for this Purpose may be prepar'd of River-water alone, with Bran, and Chamomile-flowers. But these ought not to be too hot, but moderately warm; and the Feet are to be immers'd pretty deep in them.

By the due Use of these Measures, the Violence of the Paroxysms will be either totally remov'd, or considerably abated. But, since they are very subject to return, we must, to prevent this Misfortune, pursue the third Intention of Cure, which is to remove the Causes, discuss the Stagnations of the Humours, open the Obstructions of the Viscera, and render the Circulation of the Humours equable thro' all the Parts of the Body. This Intention is excellently answer'd by Venesections in proper Parts. But these are rarely to be us'd in the superior Parts of the Body, lest by this means we should more effectually invite the Humours to them, which are already too copiously forced upwards by the spasmodic Strictures of the lower Belly. Venesections, in the Feet, are therefore most proper and beneficial, and, more or less, is to be taken away, according to the Quantity of Humours contain'd in the Patient's Body. The most commodious Seasons for Venesection are the Spring and Autumn, about the Equinoxes, or, if there is a Necessity for it, about the Solstices, at which times, Commotions of the Blood are more frequent than at others. Venesection will prove the more effectual, if the Body is previously render'd soluble, and the Humours deriv'd to the inferior Parts, by bathing the Feet. Besides, if there is a Disposition to the hæmorrhoidal Discharge, and if a Suppression of this Evacuation excites the Disease, every Month a few Leeches are to be cautiously apply'd to the Anus. In this Case, it is also expedient, successively for some Days, to exhibit mild balsamic Pills, with a nitrous antispasmodic Powder.

But, in order to remove the Obstructions of the Viscera, correct the acid and impure Humours, promote the Excretions by Stool, Urine, and Sweat, provoke the suppress'd Discharges, and render the Circulation of the Blood equal, thro' all the Parts of the Body, I know of no Medicine, whether of the dietetic or pharmaceutic Kind, which is more safe and effectual than the prudent Use of Mineral Waters, with which Nature has so bountifully supplied us. But these Waters must neither be drank too liberally, nor must the Use of them too long be persisted in; for, by this means, they rather weaken and destroy the Tone of the Stomach and Intestines. The Body is also to be prepared for them, by removing the Sordes of the *Primæ Viæ*, and diminishing the Quantity of the Humours. Mild Laxatives, and due Exercise, are also to be used along with them. But there is a Choice to be made, with respect to these Waters; since, for Women, those of a highly lax, and spongy Habit, and such as are violently afflicted with Spasms, hot Waters, and especially the *Caroline* Springs, are most proper; or, if they should rather chuse cold mineral Waters, these ought to be used warm; whereas, for such as are sanguine, phlegmatic, and of robust Constitutions, the cold Mineral Waters of *Schwalbac*, *Ægra*, and *Pyrmont*, are most beneficial. Those, on the contrary, who are of a firmer Habit, more agile, and of choleric Constitutions, receive most Benefit from the *Selteran* Springs, those of the *Spaw*, *Toenflad*, and *Wildungen*.

Great Relief is, also, to be expected from a due Regimen, which, if neglected, will render all Methods of Cure fruitless and ineffectual. A pure and temperate Air is, therefore, to be chosen, and the Patient is carefully to avoid a cold, moist, and cloudy Atmosphere; and, in a particular manner, to refrain from sleeping in such an Air. Nor ought an excessive Dread of the Injuries of the Weather to restrain the Patient entirely from the free Use of the Air; lest, by this over-done Care, his Constitution should become too sensible and delicate; and, by that means, subject to be injured upon the slightest and most inconsiderable Change of Weather. But, above all, every Degree of Cold, especially that arising from Northern Blasts, is to be carefully kept from the Stomach, Loins, and Feet; since, when this is freely admitted to these Parts, the Inflation of the Stomach, the Pain of the Back about the lumbar Region, and the Gripes of the Intestines, forthwith return. Proper Aliments are, also, to be moderately used; since, when the *Primæ Viæ* are full of acrid and bilious Sordes, the most nutritive Substances are most prejudicial, according to *Hippocrates*, in *Aph. 10. Sect. 2.* where he tells us, "that the more we nourish Persons, whose Juices are impure, the more Injury we do them." The Patient is, also, carefully to abstain from all Acids, salted Aliments, flatulent Substances, Pot-herbs, sweet Cakes, Apples, Preparations of Flour, hot and aromatic Substances; nor is he to indulge his Appetite too much, especially at Supper; for Abstinence is the most sovereign Remedy for all chronical Diseases, as the Antients justly observ'd, and as *Carolus Piss*, in his *Treatise de Morbis a serosa Colluvie*, beautifully shews.

A right Choice of Liquors is, also, of great Efficacy and Importance in the Cure of this Disorder. All Kinds of Malt Liquors load the Stomach, and are offensive to it; but hot and spirituous Liquors are found still more prejudicial. However,

old and generous *Rhenish*, or *Burgundy* Wine, diluted with Water, and drank sparingly, may be allow'd at Meals, in order to strengthen the Stomach. At other times, ordinary Drink, or the *Selteran* Waters, mixed with Wine, are to be used alternately. For this Purpose Decoctions to be drank cold, prepared of the Roots of Vipers-grass, Succory, Sarsaparilla, and China-root, the Shavings of Hartshorn or Ivory, the Roots of Liquorice and Carduus Benedictus, to which may be added Lemon or Orange-peel, are very proper. In sanguine and choleric Patients, pure Water alone, if the Stomach is capable of bearing it, is highly beneficial, since it excellently allays the Commotions of the Blood.

In alleviating hypochondriac Disorders, nothing is so powerful and efficacious as due Exercise, which ought never to be separated from the other Means of Cure; for, by this, the Circulation of the Blood and Humours, together with a salutary Transpiration, a due Secretion and Excretion, are promoted, the Humours render'd more fluid, their Passage thro' the Lungs remarkably facilitated, the Motion of the Stomach and Intestines, and, consequently, the Digestion, excellently assisted. But, tho' Exercise is of so great Importance, yet the various Kinds of it, whether Riding, Walking, or riding in a Coach, are only to be moderately used; and are most proper, when the Digestion is at an End, and the Stomach not loaded with Aliments. Besides, the Transports of Passion, and an immoderate Load of Medicines, are carefully to be avoided, as Things of the most pernicious and destructive Tendency. This Regimen, if, at the same time, the Body is kept sufficiently soluble, and Venesection is duly repeated, is not only the most efficacious Method of curing, but, also, of preventing, hypochondriac Disorders.

When the Symptoms of the hypochondriac Disorder are thus mitigated, the Causes removed, and all the Excretions rendered free and uninterrupted, a Relapse is to be prevented by corroborating the *Primæ Viæ*, and the whole nervous System. This Intention is excellently answered, not only by a long-continued Use of the balsamic visceral Elixir, and the Regimen already recommended, but, also, by Chalybeates; which, by their gentle Afringency, restore a due Strength and Tone to the weakened Fibres. These are most commodiously exhibited in a liquid Form, as in Tinctures; or the Filings or Crocus of Mars may be commodiously exhibited in Powders, prepared of the *Fæcula* of Arum-root, Crabs-eyes, Amber, Cinnabar, the Arcanum duplicatum, and the aperitive Crocus of Mars, with the Addition of a few Drops of the Oil of Sassafras-wood. The Barks of Calcarilla and China-root, mixed with these Powders, are no less considerably efficacious. Another Powder may be, also, prepared of the Roots of Burnet and Arum, the Bark of Calcarilla and Orange-peel, Amber, Mace, Cumin-seed, and Salt of Wormwood; which, by their mild and balsamic Quality, strengthen the Stomach and Intestines, assist the Digestion, and prevent the Generation of Crudities. Nor is small Advantage to be expected from the external Use of Chalybeate Baths; such as those of *Lanchstad*, *Freyenwald*, and *Toeplitz*, to be used after drinking the *Caroline* Waters; since these, in Conjunction, greatly strengthen the Body.

Nor are external Remedies to be omitted; since they are of singular Efficacy in violent Inflations of the Intestines. Among these, I am, from long Experience, convinced of the singular Virtue of the Emplastrum Camphoratum Soporatum of *Barbette*, or the Emplastrum Antispleniticum of *Fabricius ab Aquapendente*, applied to the Hypochondria. No less happy Effects will be produced by the Balsamum Viæ, mixed with two Parts of Hungary Water, and applied by way of Ointment, Morning and Evening, to the Hypochondria.

PRACTICAL CAUTIONS.

No Disease is more troublesome, either to the Patient or Physician, than hypochondriac Disorders; and it often happens, that, thro' the Fault of both, the Cure is either unnecessarily protracted, or totally frustrated; for the Patients are so delighted, not only with a Variety of Medicines, but also of Physicians, that 'tis frequently requisite to remind them of the following Maxim of *Montanus*: "Neither consult Physicians, nor use Medicines, and you'll soon recover." On the contrary, few Physicians are sufficiently acquainted with the true Genius and Nature of this perplexing Disorder; for which Reason they boldly prescribe almost every thing contained in the Shops, not without an irreparable Injury to the Patient. Few pharmaceutical Preparations are of any Service for the Alleviation of this Distemper; and strong generous Medicines, or those called Cordials, are absolutely next to Poison.

Among the Number of these, are, first, Vomits, which the Patients take sometimes of their own accord, and, perhaps, oftener by the Advice of their Physician; especially if they are afflicted with a violent Uneasiness of the *Præcordia*, Inflations of the Stomach, Nauseas, Efforts to vomit, Eructations, and such an Obstruction and Constriction of the Hypochondria, that they seem to be compress'd, as it were, with a Rope, or pressed with a Weight. Nor is it to be denied, that, in such a Situation, the Symptoms are, in some measure, relieved by a gentle Emetic.

But I would have them absolutely abstain from the more drastic stimulating Substances, for the Relief they afford is not only short in itself, but brings after it a Train of highly terrible Symptoms. We are not, however, entirely to discharge gentle Vomits of Ipecacuanha mixed with Crabs-eyes. Nor are we to dread those Vomits, which, by spasmodical Constrictions of the Stomach, frequently happen to hypochondriac Patients, when they first begin to drink the *Caroline* Waters; for, when the Drinking is persisted in for some time, and the Mucus evacuated from the Bottom of the Duodenum, they will cease spontaneously, and the Operation of the Water succeed the better.

Besides, as the Physician's principal Care ought to be to preserve the Body soluble, so he must beware of increasing the Disorder, by the Use of drastic Purgatives, Preparations of Scammony and Jalap; for these stimulate the Intestines to violent Spasms, throw the Humours into preternatural Commotions, destroy the Tone of the Parts still more, and leave behind them a more obstinate Constipation. Nor are Patients of delicate and tender Constitutions capable of bearing large Doses of neutral Salts; but reap far greater Advantage from lubricating Aliments, Clysters, Preparations of Manna and Rhubarb. Nor are the *Pilulæ Polychrestæ Balsamicæ*, which contain Aloes, proper to be used by every Patient, or too frequently by any; especially where there is no natural Disposition to the hæmorrhoidal Discharge; and where the Redundance of Humours is not previously less'n'd; for they stimulate the Intestinum Rectum, excite fruitless Efforts, and render the Stagnation and Dryness greater than they were before. On the contrary, when the Disease is encourag'd by a Suppression of the Menstrues, or hæmorrhoidal Discharge, these Pills are of singular Advantage, if exhibited every Month for some Days successively. Nor is it improper, if they should excite a Commotion of the Humours, to mix a due Quantity of the precipitating nitrous Powder with them. In some Patients, whose *Primæ Viæ* are loaded with acid Crudities, the Body is frequently rendered sufficiently soluble by Crabs-eyes, or prepar'd Shells alone, since, by uniting with the Acid of the Stomach, they form a neutral bitterish Salt, which, by its gentle Stimulus, excites the Intestines to a Discharge of the Fæces; at least they produce far better Effects than even the *Magnesia*, which, when there is no Acidity to encounter, vellicates the Stomach and Intestines.

Some hypochondriac Patients have their Bodies rendered soluble, and their Flatulences increased, or even Efforts to vomit, a Nausea, and actual Vomitings, produced by Preparations of Manna. In this Case, they ought to be entirely abstained from, and the Relief of the Patient is to be attempted by Preparations of Rhubarb and Clysters. Nor are there a few Patients, especially of the Female Sex, to whom Clysters are highly troublesome and uneasy; in which Case, they are to be prepared with a large Quantity of Oil, and frequently repeated, exhibiting internally, at the same time, such Medicines as seem best adapted to the particular Constitution of each Patient.

As in the Cure of hypochondriac Disorders nothing is of greater Use than Venesection, so nothing is more hurtful and pernicious, when administered unseasonably, or in an improper Place; for it is absurd and ridiculous to use it too often, on account of the supposed Thickness of the Blood; since, by this means, those, who are already too weak, by an excessive Loss of Blood, are rendered still weaker: On the contrary, when the Vessels are turgid with Blood, or the usual Evacuations of Blood totally suppressed, liberal Venesection is not only expedient, but highly advantageous: Nor ought this Evacuation to be made from the Arm, except in certain Cases. At the Time of Venesection the Patient ought to be particularly careful to preserve an easy State of Mind, to guard against Cold, and abstain from gross Aliments, lest, by the cold Air, a salutary Perspiration should be check'd, or, by the gross Aliments, Crudities generated in the *Primæ Viæ*.

Great Caution is also requisite in the Application of Leeches; for where there is no Propensity to the hæmorrhoidal Discharge, or where that Evacuation is of the symptomatic Kind, we ought to be so far from promoting it by Leeches, that we ought rather to make a Revulsion and Derivation of the Blood from these Parts: But when the hæmorrhoidal Discharge has been stopt, and again seeks for a Vent; when there are violent Pains in the Os Sacrum, and Intestinum Rectum; or when a griping hæmorrhoidal Colic afflicts the Patient, nothing is more salutary and beneficial than Leeches: But 'tis frequently necessary to premise an universal Evacuation of the Humours by Venesection: It is also expedient to cherish the Parts about the Anus with Fomentations, and apply the best Leeches, at the very Time when Nature makes an Effort to promote the Eruption.

That Exercise may produce the more salutary and happy Effects, it is to be performed in a serene and mild Air, lest the Injury the Patient sustains from the external Cold, should not be compensated by the Advantages accruing from the Exercise. Nor is it to be violent, but moderate, and continued gradually, till a gentle Heat is raised on the Body. We must, also, be highly careful, that the Mass of Humours be diminished, and the Body sufficiently soluble, lest the Exercise should throw the Blood

into too violent Commotions. No Species of Exercise, especially Riding, either on Horseback, or in a Coach, ought to be used immediately after eating, since, by the Succussions, the Flatulences are rendered more troublesome. The most commodious Time for Exercise is, in the Morning, after drinking a few Cups of some warm Infusion; or in the Afternoon, when the Digestion is finished.

With respect to Drink, nothing can be absolutely determined; but every one ought to be at due Pains to discover what Liquor best agrees with himself: Some are very well with drinking light and weak Ale; for which Reason, the Use of that Liquor is not to be denied them. Others reap a very considerable Advantage, either from cold Water alone, or from a Decoction of Water with Cinnamon, which may be safely allowed them. When the hypochondriac Disorder is complicated with a scorbutic Disposition of the Humours, after purging the Primæ Viæ, not only Whey, if the Stomach is capable of bearing it, is of considerable Service; but also Milk, mixed with the *Selteran* Mineral Waters, may be advantageously exhibited. With respect to cold Mineral Waters, we must observe, that those, who are afflicted with excessive Spasms, or labour under a violent Cardialgia, ought not to drink them cold, because Cold is highly prejudicial to the Nerves: 'Tis therefore more expedient for such Patients either to use hot Mineral Waters, or such as are cold, made warm. All acid Wines, such as *Rhenish* and *Moselle* Wine, increase the Acidity of the Stomach when recent; whereas a moderate Use of old *Rhenish* or good *Burgundian* Wines, diluted with Water, may be safely permitted.

As irregular and disorderly Workings of the Fancy almost always accompany this terrible Disorder, the Patient ought carefully to avoid every Opportunity of having his Mind ruffled and discomposed, because, unless the Passions are kept in due Subjection, the Attempts of the Physician, tho' otherwise proper, will prove entirely fruitless and ineffectual: Facetious Company is, also, to be kept, and the Mind diverted by all the innocent Amusements of Life. For this Reason Journeys to Baths are beneficial to hypochondriac Patients, in several respects; since, by this means, they have Exercise, Change of Air, agreeable Company, and the Advantages to be reaped from the Waters themselves. On the contrary, Lucubrations, and close Study, especially during, or soon after Meals, are to be forbid; because 'tis certain from Experience, that nothing has a more direct Tendency to destroy the Digestion of the Aliments, than long-continued Application and Fatigue of Mind. In order to prevent the Generations of Flatulences in those Literati, who, in consequence of their Functions, cannot absolutely abstain from Study, besides Exercise, I know of no more valuable and efficacious Medicine than the Elixir Balsamicum.

When the hypochondriac Disorder is complicated with such a Degree of Melancholy, as to threaten the Appearance of direct Rage and Fury, which frequently happens, nothing affords a more speedy or infallible Relief than moderately warm Baths of sweet Water: For, as the Foundation of these melancholic Disorders, bordering upon Madness, consists in the spasmodic Constriction of the exterior and inferior Parts of the Body; and more especially in a violent and impetuous Conveyance of the Humours to the Head; so nothing is of more Efficacy in relaxing the Spasms, and restoring the equal Circulation of the Blood than these Baths; with which may be joined the internal Use of cold Mineral Waters, together with Venesection in the Feet, and sometimes an Evacuation of Blood from the Nostrils.

Chalybeate Medicines are highly celebrated in the Cure of hypochondriac Disorders: But as these are highly beneficial, when properly exhibited, so nothing is more certainly prejudicial and destructive than the Use of them without any regard to Time, or other Circumstances of Importance. If the Spasms are violent, the Viscera obstructed, the Patient costive, the Humours redundant, and the Primæ Viæ loaded with Crudities, we are to abstain from an immoderate Use of them; because, in this Case, the Disorder easily degenerates into a Cachexy. But when the Spasms are remitted, and the Mass of Blood diminished, they are of singular Service, by rendering the Excretions more free; only they are to be prescribed with a sufficient Quantity of diluting Liquors, and a due Degree of Exercise. Those who have not an Opportunity of using Mineral Waters, may, in their stead, substitute Broths prepared of the aperient Roots, together with the *Tinctura Martis Zwoelfferi*, and impregnated, either with Juice of Apples, or Quinces. These Broths are frequently to be used in proper Doses. *F. Hoffman*. See MELANCHOLIA and MAGNESA.

HYPOCHILOREMA, HYPOCHORESIS, ὑποχώρημα, ὑποχώρησις, from ὑποχωρίζω, to retire or recede, is properly spoken of Matters which pass off by Stool. *Galen, Com. in Aph.* By *Hypochorema*, ὑποχώρημα, however, γ *Aph.* 68. 69. 82. are to be understood Things voided by Urine.

HYPOCHYMA, *Hypochymis*, ὑπόχυμα, ὑπόχυσις, from ὑπὸ χύω, to pour, the same as CATARACTA. See AMAUROSIS.

HYPOCHYTOS, ὑπόχυτος. See DIACYTOS.

HYPOCISTIS. Offic. C. B. I. B. Park. *Purpurea flore candidante & flore luteo*. T. Coral. *Orobancha quæ Hypocistis dicitur*. R. H. *Minor à Cisto nascens*. H. Ox. RAPE of CISTUS.

This is a Kind of *Orobancha* or *Rape of Cistus*, growing usually as *Clusius* says, under the *Cistus Hypocistidem ferens*: It is a low dry Plant, thick-set with small round Leaves. The Flowers grow on the Top of the Stalks, in Shape somewhat like the Flowers of Pomegranates of a pale Colour. The Seed-vessels are large, resembling those of Henbane, in which lie a great deal of small dusty Seed. The whole Plant, especially, when it first springs out of the Ground, is of a red, or greenish-red Colour.

Of this Plant is made the *Succus Hypocistidos*, which is of a hard, tough Consistence, and a black shining Colour on the Inside, not much unlike the *Spanish* Juice, or Liquorice, of a rough, styptic, and a little sourish Taste. It is very drying and binding, being useful for a Diarrhoea and Dysentery, the Hepatic Flux, the Excess of the Catamenia and Fluor Albus; and likewise against Vomiting and Spitting of Blood.

HYPOCLEPTICUM *Vitrum*, a Glass Funnel, contrived for separating Oil from Water. The Word is formed of ὑπὸ, under, and κλέπτω, to steal, because it steals, as it were, and conveys away the Water from the Oil. *Blancard*.

HYPOCOELON, ὑπόκοιλον, from ὑπὸ, under, and κοῖλος, (Celon) the Cavity above the upper Eye-lid, is the Cavity under the lower Eye-lid, answering to the *Celon* before-mentioned. *Ruffus Ephesus, Lib. 1. Cap. 4.*

HYPOCRANIUM, a kind of Abscess, or Suppuration, so called because seated under the Cranium, between that and the Dura Mater. *Castellus*.

HYPODERIS, ὑποδερίς, in *Ruffus Ephesus*, is the Extremity of the fore Part of the Neck.

HYPODERMIS, the same as EPIDERMIS, or the CLITORIS. *Ruffus Ephes.*

HYPODESIS, ὑπόδεσις, from ὑπὸ, under, and δέω, to bind, *Hippocrates, de Offic. Medici*, is the Junction of the two Fillets, which he calls *Hypodesmides*, ὑποδεσμίδες, and directs to be applied in Fractures, before the Application of the Compresses. *Galen, Com. 2. in Lib. de Off. Med. Tit. 2.*

HYPODESMIS, ὑποδεσμίς. See the preceding Word, and the Article EPIDESMOS.

HYPOGASTRICA *Scelcio*, from ὑπὸ, under, and γαστήρ, the Belly, in Lithotomy, is what they call The high Operation.

HYPOGASTRION, ὑπογάστριον. See ABDOMEN.

HYPOGLOSSIS, HYPOGLOSSIUM, ὑπογλωσσίς, ὑπογλωσσίδιον, ὑπογλωσσίς, from ὑπὸ, under, and γλῶσσα, the Tongue, in a physiological Sense, is the inferior Part of the Tongue, adhering to the Jaw, and the Seat of the Disease called *Rana*; whence that Disorder is called by *Aetius, Tetrab. 2. Serm. 4. Cap. 39.* ὑπογλωσσίου βέλτερχον, the *Rana*, or Frog under the Tongue. *Hypoglossis*, ὑπογλωσσίς, in a pathological Sense, is a Tubercle under the Tongue, *Hippocrates, Lib. 2. de Morb. Hypoglossitides*, ὑπογλωστίδες, are a kind of *Boche*, or medicinal Preparations, for Disorders of the Aspera Arteria, to be held under the Tongue, till they are insensibly dissolved. Several Sorts of these are described by *Galen, de C. M. S. L. Lib. 7.*

HYPOGLOSSUM. See BISLINGUA.

HYPOGLOTTIDES *Pilula*. Pills for a Cough, to be held under the Tongue. See HYPOGLOSSIS.

HYPOGLUTIS, ὑπογλυτίς, from ὑπὸ, under, and γλῆς, the Nates, is the fleshy Part under the Nates, towards the Thigh. *Gorræus*. It is otherwise expounded, the Flexure of the *Coxa*, under the Nates.

HYPOMIA, ὑπωμία, from ὑπὸ, under, and ὤμων, the Shoulder, in *Galen's Exegetis*, is expounded τὸ ὑποκείμενον ἢ τὴν ἐπωμίδα, ἢ καὶ τὴν ὤμω, "The Part subjacent to the upper Part of the Shoulder, or to the Shoulder itself."

HYPONOMOS, ὑπονόμος, from ὑπὸ, under, and νόμος, a phagedenic Ulcer, is a deep and sinuous phagedenic Ulcer.

HYPONOS, HYPONISCOS, ὑπονός, ὑπὸνισκος, from ὑπὸ, under, and ὄνος, *Onos*, (a Name, in the ancient Surgery, for the versatile Axes of a Machine contrived for the Reduction of Fractures and Luxations, *Galen, Com. in Lib. de Artic.*) seems to be an Instrument for managing the *Onos*, or turning it a different Way from what was done by the *Mochlos*, or Lever. *Hippocrates, Mochlicus*; where ὑπόσον (Hyposunos) is corruptly read for ὑπονός. *Boesius*.

HYPOPEDIIUM. A Cataplasm for the Sole of the Foot.

HYPOPHASIA, from ὑποφαίνομαι, to appear a little.

A sort of Winking, when the Eye-lids are drawn pretty close together, so that but very little of the Eye appears, that but a small Number of the Rays of Light may be admitted at once.

HYPOPHASIS. Of the same Derivation as *Hypophasia*.

This imports a Symptom very common in Diseases, and is of very bad Prefage. It is, when the Eyes are almost closed, during Sleep; but, in such a manner, that part of the White of the Eyes appears; and a slight Motion of the Eye is perceiv'd. *Hippocrates*.

HYPOPHORA, ὑποπόρη, from ὑποφέρειν, to be carried or convey'd underneath.

A deep fistulous Ulcer.

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HYPOPTHALMION, ὑποθάλμιον, from ὑπὸ, under, and ὀφθαλμός, the Eye.

The Part immediately under the Eye, which is subject to swell in a Cachexy or Dropsy. It sometimes imports the same as **HYPOPION**.

HYPOPHYLLLOCARPODENDRON.

The Name of a Plant in *Buerbaave*, of which he mentions two Species; which are,

1. Hypophyllocarpodendron; foliis lanuginosis; in apice trifido, rubro, quasi florescens.

2. Hypophyllocarpodendron; foliis inferioribus apice trifido, rubro, superioribus penitus rubris, glabris.

There are no medicinal Virtues attributed to either of these Plants at present, that I know of.

HYPOPHYLLOSPERMOUS, of ὑπὸ, under, φύλλον, a Leaf, and σπέρμα, Seed, are such Plants as bear their Seeds on the Backsides of their Leaves. *Mil. Diff. Vol. 1.*

HYPOPIA, ὑπόπια, imports Sugillations in the Parts immediately under the Eyes.

HYPOPLEURIOS, ὑποπλευρίος. A Name for the **PLEURA**.

HYPOPSATHYROS, ὑποψαθυρός, from ὑπὸ, importing Diminution, and ψαθυρός, friable. Somewhat friable. It is applied to the Excrements of the Belly, in *Hippocrates's Prorrhetics*.

HYPOPYON, ὑπόπυον, from ὑπὸ, under, and πύον, Pus, or Matter.

We frequently meet with a Collection of purulent Matter, immediately under the Cornea, near the aqueous Humour. This Disorder is term'd *Hypopyon*, or *Pyosis*: It proceeds from an Extravasation of Blood, or Translocation of Pus, after a violent Inflammation, the Small Pox, couching a Cataract; or from any external Injuries of the Eye, as a Blow, Fall, Contusion, or Burn. It is attended, in the Beginning, with acute Pains, both of the Head and Eye; and, according to the Degree of the Injury, is follow'd by a Diminution of Sight, Blindness, or Death itself.

St. Yves says, that Abscesses which affect the transparent Part of the Cornea, begin, sometimes, with a little white Spot, which appears on the first Pellicle of that Membrane; this Symptom is succeeded by an external Elevation of the Part: They are easily cured, by slightly pricking them with a Lancet, without piercing the other Pellicles. But if the Abscess lies deeper, and in the Middle of the Cornea, and overspreads almost the whole internal Part of that Membrane, it then becomes what is called an *Hypopyon*; but, if this Abscess be not so large, and it breaks, spontaneously, on the Inside of the Eye, so that the Pus falls into the anterior Chamber, between the Iris and the transparent Part of the Cornea, and is there collected in a Speck, shaped like an Half-moon, resembling that which appears at the Bottom of our Nails, it is then called *Onyx*.

Sometimes the transparent Part of the Cornea is free, and the Abscess lying between the *Conjunctiva* and *Sclerotica*, or in the Substance of the latter, the Pus breaks into the anterior Chamber, between the *Iris* and the transparent Part of the Cornea: In the first Case, the Pressure of the Eye-lids may cause it; in the second, it may proceed from the Pressure of the *Aponeurosis* of the Muscles of the Globe.

The principal Methods of Cure are three: The first, and mildest, is the Use of resolvent Medicines; such as a frequent Application of a Decoction of Sage, Eyebright, Elyssop, and Fennel-seeds, in Wine; or of little Bags, filled with those Ingredients, and boiled in Wine: To these may be added, Bleeding and Purging; for, by these, unless the Blood or Pus is in a very great Quantity, the Eye may be restored to its former Vigour, as I am assured from long Experience. When these Remedies, therefore, appear to have any Effect, they should be continued, till the Blood or Matter is dispersed; but when the Pains, and other Symptoms, are increased by them, an Operation is absolutely necessary; for, otherwise, in all Probability, the contain'd Matter will destroy the internal Parts of the Eye, or corrode the Cornea, and, after the most excruciating Pains, bring on an incurable Blindness.

But, before we enter upon the Operation, it will not be amiss to describe the Method of *Jussus*, a celebrated Oculist in *Galen's* Time: He placed the Patient on a Seat opposite to himself, and, taking hold of his Head, with both Hands, shook it very assiduously about, till the Matter disappeared. During this Agitation, it is very remarkable, what *Galen* testifies, that the Spectators could discern the Pus gradually subsiding to the Bottom of the Eye. Some, indeed, reject this as useless and ridiculous; but I must dissent from them; and am confirm'd in my Opinion, not only by the Authority of *Galen*, but my own Experience: I had a Patient under my Care for an *Hypopyon*, who was obliged to take a Journey in a Chariot; upon his Return, the next Day, I found the purulent Matter dispersed by the Concussion, and it was undoubtedly thrown down behind the Uvea. I should, therefore, advise a Trial of this Practice, before any Instrument is used: But, before the Concussion, the Head, or whole Body, should be disposed in a supine Posture, and the Eye pressed gently with the Fingers, to loosen the Matter: When the Greatness and Obstinacy of the Disorder, or the Quantity of

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Pus, renders this Agitation ineffectual, recourse must be had to the Operation, which *Galen*, *Aetius*, and other Antients, have described and recommended, tho' the Moderns have so far neglected it, that we should scarce have heard of it at present, had not *Riverius*, *Meekren*, *Nuck*, and *Bidlow*, revived it, in the last Century.

As for the Operation, the Patient must be seated in a very light Room, directly against the Light, as in the Couching of a Cataract, his Hands and Head being held right by Assistants. The Surgeon himself depresses the lower Eye-lid, while an Assistant elevates the upper; the Operator then takes a Lancet, and makes an Incision through the Cornea, below the Pupil, and about the Space of a Line from the White of the Eye, large enough to discharge the Matter, and aqueous Humour; all this with the utmost Caution, lest he should wound the Uvea beyond the Pus. If the Humour does not discharge itself sufficiently, the Eye must be gently pressed by the Fingers. Having thus discharged the corrupted Humour, a Compress, moisten'd with a Collyrium of Rose or Plantain-water, mixed with the White of an Egg, or with the Mucilage of Quince-seeds, either with or without Camphire, is to be applied, every third or fourth Hour, to the Eye. For this will both heal the Wound in the Cornea, and restore the aqueous Humour, with the Sight, if there is no very considerable internal Injury: For tho' there does remain a small Cicatrix in the Cornea, yet, as it is below the Pupil, it will be little or no Detriment to the Sight. In the mean time, that the Operation may be perform'd with Safety, the Lancet should be rolled in Lint, or a Piece of Plaister, so that not above a Straw's-breadth of its Point may be left uncover'd, that it may not penetrate too deep into the Eye. *Meekren*, for this Reason, invented a peculiar Instrument, publish'd in the tenth Chapter of his *chirurgical Operations*, and represented in our *Tab. XXXIX. Fig. 10.*

Sometimes the Matter is too thick to be discharg'd through this small Aperture of the Cornea; then it will be proper to use the Needle, (*Tab. XXXIX. Fig. 12.*) which is, also, employ'd for making Setons: For, besides that the Uvea is not so easily wounded by this curve-pointed Instrument, the triangular Figure will make a larger Incision, and, of consequence, the inspissated Matter will be more readily discharged; but this must be involved in the same manner as we directed the Lancet should. *Platnerus* has delineated a peculiar Instrument for this Use, (see *Tab. XXXIX. Fig. 13.*) with almost the same triangular Point; and ascribes the Invention of it to *Woolhouse*. If the inherent Matter is too tenacious, *St. Yves* advises to introduce a small Probe, or inject some cold Water with a Syringe, and to continue this; or, if the Disorder returns in two or three Days, to repeat it, till the whole Pus is dissipated; after which, the Wound may be healed. If there is an Inflammation, the Patient should lose some Blood, be blister'd, scarified, and discutient Fomentations, with other proper Medicines, should be applied to the Part affected, as the Circumstances require. *Heist. Chirurg.*

HYPORINION, ὑπορίνιον. A Name for the Parts of the upper Lip, immediately below the Nostrils.

HYPORISMA. The same as **EMBORISMA**.

HYPOSARCA, and **HYPOSARCIDIOS**, import an *Anasarca*.

HYPOSPADIÆUS. One whose Urethra is terminated underneath the Glans.

It implies, strictly, being almost an Eunuch.

HYPOSPATHISMUS, ὑποσπασθισμός.

This Operation, in Surgery, takes its Name from the Instrument with which it is perform'd. The *Hypospathismus* is of Use in copious Defluxions of pituitous Humours upon the Eyes, attended with a Redness of the Face, and a Sensation, as it were, of Worms or Ants crawling about the Forehead. In this Case, we first shave the Head, near the Forehead; then, ordering the Patient to move his lower Jaw, we avoid the temporal Muscles, and make three strait and similar Incisions in the Forehead, each two Digits in Length, as deep as the Bone, and three Digits distant from one another: After the Incisions are made, we are, with the Instrument Spatula, to begin at the Incision next to the Left Temple, and raise all the Parts, together with the Pericranium, lying between it and the middle Incision; then passing the Instrument forward, in the same manner, from the middle Incision to that on the Right Temple, we are to pass a sharp Knife, whose Back is directed to the Bone, and its Edge to the Skin, from the first to the middle Incision, and thence to that of the Right Temple, cutting, as we pass along, all the Vessels which are distributed from the Head to the Eyes, taking care, at the same time, not to pass the Knife entirely through the Skin. Then, after a moderate Evacuation of Blood is made, and the grumous Part expressed, a Pledget is to be put in each Incision, and a Dressing of Lint, soak'd in Water, applied, and secured by proper Bandage. Next Day, by reason of the Inflammation, we are to moisten the Wounds, and temporal Muscles, with a Mixture of Wine and Oil: And, on the third Day, removing the Dressings, we are liberally to anoint the affected Parts with the same, and continue to perform the rest of the Cure, by the Use of Pledgets dipt in a Solution of Balsicon, with Oil of Roses. *Paul Aeginet. Lib. 6. Cap. 6.*

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HYPOSPHAGMA, ὑπόσφαιμα. The same as APOSPHAGMA. It, also, imports Sugillation, or Inflammation of the Tunica adnata of the Eye.

HYPOSTASIS, ὑπόστασις, from ὑπίστημι, to subside. The Sediment in Urine. See URINA.

HYPOSTATHME, ὑποστάθμη, from ὑπὸ, under, and σταθμός, a Station. The thick Sediment which subsides in any Liquors, as the Amurca in Oil, or the Fæces in Wine. It is, sometimes, us'd in the same Sense as HYPOSTASIS.

HYPOSTEMA, ὑπόστημα. The same as HYPOSTASIS.

HYPOSTROPHE, ὑποστρεφή, imports either a Patient's Turning himself, or a Relapic. It is deriv'd from ὑποστρέφω, to deflect, turn aside, or to return.

HYPOTHENAR. A Name for the *Abductor minimi Digiti Manus*. See ABDUCTOR. It, also, imports that Part of the Hand which is opposite to the Palm.

HYPOTHETON, ὑπόθετον, from ὑποτίθημι, to put under. A Suppository.

HYPOTRIMMA, ὑπότριμμα. A sort of Aliment mention'd by Hippocrates, in his second Book *de Dieta*. According to Hesychius, it is made of Dates, Honey, Cumin, and other Ingredients, bruis'd together.

HYPOTROPE, ὑποτρέπη, from ὑπὸτρέπω, the same as ὑποστρέφω, to return. A Relapic.

HYPOXYLON. A Name for a Species of Agaric, which Boerhaave calls *Agaricus digitatus niger*.

HYPOZOMA, ὑπόζωμα, from ὑποζώννυμι, to surround. A Name for the Diaphragm.

HYPSILOGLOSSUS. The Name of a Muscle of the Tongue. The same as CERETOGLOSSUS.

HYPSILOIDES. A Name for the Os Hyoides; so call'd from its Resemblance to the Greek *Isydon*.

HYPTIASMOS, ὑπτιασμός, from ὑπτιάζω, of ὑπτιόω, supine. It imports Resupination, or a supine Decubiture; or a Nausea and Sickness at the Stomach, with frequent Inclinations to vomit.

HYPULUS, from ὑπὸ, sub, under, and ἔλκω, a Cicatrix. An Ulcer which lies conceal'd under the Cicatrix.

HYSMA, ὕσμα. Rain. Hippocrates.

HYSSOPIFOLIA MAJOR. A Name for the *Salicaria*; *Hyssopi folio, latiore*.

HYSSOPIFOLIA MINOR. A Name for the *Salicaria*; *Hyssopi folio, angustiore*.

HYSSOPITES. An Epithet for Wine impregnated with Hyssop. Dioscorides, Lib. 5. Cap. 50. recommends it against Disorders of the Breast, Pleura, and Lungs, old Coughs, and Asthmas. He adds, that it is diuretic, and good against Gripes, and periodical Rigors; and that it provokes the Menfes.

HYSSOPUS.

The Characters are;

The Leaves are oblong and narrow; the Galea is erect, roundish, and bifid; the Beard trifid, the Middle Segment being hollow, like a Spoon, bicuspidated, or double-pointed, and, as it were, winged. The Flowers are closely set in Whorles, which, at first, are placed at a good Distance from one another, but are afterwards collected into a Spike, and take up only one Part of the Stalk.

Boerhaave mentions seven Species of this Plant; which are,

1. Hyssopus; Officinarum; cœrulea, seu spicata. C. B. P. 217. Tournef. Inst. 200. Boerb. Ind. A. 160. Hyssopus vulgaris. Park. Theat. 1. Hyssopus vulgaris spicatus angustifolius. J. B. 3. 274. Raii Hist. 1. 579. Hyssopus Arabum. Ger. 464. Emac. 576. HYSSOP.

Our common Hyssop grows to be almost a Foot high, or more, with many Stalks, which are square at first, but grow to be round, as they come to flower. The Leaves are long, narrow, and sharp-pointed, set two at a Joint. The Flowers grow in long Spikes, made of thin Whorles, of pretty large thin Flowers, disposed all on one Side the Stalk. They have a Galea cut in two, and the Labella divided into four Segments. The Seed is small, and black, growing four together in the Calyx. The Root is thick, woody, and much divided. The whole Plant is of a pretty strong aromatic Smell; it is sown in Gardens, and flowers in July. The whole Plant is us'd.

Hyssop is healing, opening, and attenuating; good to cleanse the Lungs of tartarous Humours, and helpful against Coughs, Asthmas, Difficulty of Breathing, and cold Distempers of the Lungs; it is also reckon'd a Cephalic, and good for Diseases of the Head and Nerves. The bruis'd Herb, applied outwardly, is famous for taking away black and blue Marks out of the Skin.

The only Official Preparation of Hyssop is the Simple Water.

Of how great Efficacy Hyssop is, in Sugillations of the Eyes, we learn by an Instance from Riolanus the elder: I found by Experience, says that Physician, the Truth of what Archigenes affirms, in Galen, which is, that if the Tops of Hyssop be tied up in a Cloth, and boil'd in Water, and the Cloth afterwards applied warm to the livid Eye, the Blood will be attracted by the Hyssop to so manifest a Degree, as to stain the Linen. Upon this Authority I have, several times, prescrib'd a Decoction of

Hyssop against Sugillations, even of the Eyes; only, instead of Water, I sometimes order'd the Bag to be boil'd in Wine; and, directing the Application of it, somewhat warm, to the Eyelids, when the Patient went to bed, his Eyes being shut, the Lividness was remov'd as well as I could wish. Simon Paulli.

Mr. Boyle tells us, that a noted Gentleman of his Acquaintance, who had his Thigh terribly bruise'd by a Kick from an Horse, was, by the sole Application of a sort of Cataplasm prepar'd of the Leaves of Hyssop cut very small, and mix'd with fresh or unsalted Butter, in a few Hours freed from his Pain, and the very Skin clear'd from all livid or other Marks of the Blow. Raii Hist. Plant.

Hyssop has a very pleasant Smell, and a penetrating Taste, leaving the grateful Relish of its aromatic Humour in the Mouth. Its heating, dissolvent, stimulating, and deterfive Virtues appear from its aromatic and balsamic Smell. On these Accounts it must be very proper for freeing the Lungs from gross, viscid, purulent Phlegm; and an Infusion of the Leaves in Water, sweeten'd afterwards with Honey, is accounted one of the best Pectorals; but, if there be a considerable Inflammation, this Remedy is improper. Hyssop, in Surgery, has its Use in heating and ripening, and in Cases where an Expulsion by Sweat and Urine is required, as in the Gout, Leucophlegmatia, Scurvy, Asthma, Dropsy, Pleurisy, Cough, and Diseases owing to Viscidity. Preparations of it are an Infusion, Decoction, the recent Juice, the distill'd Water, and the Conserve. A Cataplasm of the recent Leaves cleanses foul Ulcers. The Vapour, receiv'd into the Ears, takes off their Ringing. Some prefer it to Wormwood, for corroborating the Stomach.

The Word *Hyssop* comes from the Hebrew *Ezeb*, signifying an holy Herb, or an Herb appointed for cleansing holy Places; whence the Psalmist prays, *Purge me with Hyssop*. But the Hyssop of the Antients is unknown: Many take it to be Wall-rue; we are certain, at least, that it was a Wall-plant; for Solomon, the Prince of Botanists, treated of Plants from the Cedar even to Hyssop, a small Plant growing on the Wall. Now, in Wall-rue there is a detergent Quality, as well as in Hyssop, whence it is accounted serviceable in cutaneous Diseases, especially the Itch: But, whether this, or any other Herb, be the Hyssop of the Antients, the Name is at present appropriated to the Plant above describ'd. *Historia Plantarum*, ascrib'd to Boerhaave.

2. Hyssopus; latifolia. C. B. Prodr. 107.
3. Hyssopus; vulgaris; alba. C. B. P. 218. M. H. 3. 361.
4. Hyssopus; rubro flore. C. B. P. 217. M. H. 3. 361.
5. Hyssopus; montanum; Macedonicum; Valerandi Dourez. J. B. 3. 276.
6. Hyssopus; angustifolia; montana; aspera. C. B. P. 218.
7. Hyssopus; humilior; Myrtifolia. H. R. Par. Boerb. Ind. alt. Plant. Vol. 1. p. 160.

Miller enumerates thirteen Species of this Plant.

HYSSOPUS AUSTRIACA. A Name for the *Ruyschiana*; *flore cœruleo, magno*.

HYSSOPUS CAPITATA. A Name for the *Thymus*; *capitatus*; *qui Dioscoridis*.

HYSTERA, ὕστερα. The UTERUS; which see.

HYSTERIALGES, ὕστεραλγος. An Epithet for any thing which excites Pains of the Uterus. It is, by Hippocrates, applied particularly to Vinegar: From ὕστερα, the Uterus, and ἄλγος, Pain.

HYSTERA-PETRA. The Name of a Stone, otherwise called *Hysterolithos*, found frequently in Italy and Germany. It is of the Shape of the Uterus; and hence some superstitious Virtues are attributed to it; as, that it cures Vapours, and provokes the Menfes, if tied about the Thigh.

HYSTERICA, ὕστερα (τὴν), from ὕστερα, the Uterus, or Womb, are Affections or Diseases of the Uterus, 5 Aph. 35. where Galen explains the Word ὕστερα by ὕστερα πνιγὰ ἢ ἀπνοίαν, "hysteric Strangulation, or Suffocation." Ὑστερα ἐν κοιλίῃσι σκληρύνεσθαι, are Hardnesses of the Uterus in the Belly, perceivable by the Touch, and a Sense of Weight on the Part. Coac. Ὑστεραι (Hystericæ) are Women labouring under hysteric Disorders: Thus, 1 Proorrh. 119. οἱ ἐν ὕστεραις ἀπύρω σπασμοὶ δ' ἐξέρχονται, "Women easily seiz'd with hysteric Disorders, without a Fever, are subject to Convulsions." And this is repeated Coac. 349. and 554.

That Distemper, or rather Series of Distempers, which the Antients termed hysteric Affections, may be very properly referred to the spasmodico-convulsive Passions of the nervous Kind, as it frequently brings the whole nervous System into Disorder, there being scarcely a Fibre, in the human Machine, exempt from its Influence. We define it, therefore, a spasmodico-convulsive Affection of the nervous Kind, proceeding from a Retention or Corruption of Lymph, or Blood, in the uterine Vessels, which, by means of the Nerves of the Os Sacrum, those of the Loins, and the spinal Marrow, influences all the nervous Parts of the Body.

The Generality of Moderns make no Distinction between this and the hypochondriac Disorder, but in the Subject, calling it in Women the hysteric Affection, and in Men the hypochondriacal;

chondriacal; but as there certainly is a much wider Difference, it cannot be amiss to give an exact Account of the Distemper. For this Purpose, if we consult *Hippocrates, Aretæus, Fernelius, Duretus, Montanus, Ballonius, Hollerius, Mercurialis, and Johannes Keurnius*, we shall find them unanimously agreed, that the true, essential Symptoms are, a Strangulation about the Fauces, a suffocating Interception of Respiration, Fainting, a Privation of Speech, and Drowsiness; and that, before the Paroxysm, the Patient perceives an Ascent of a kind of Globe; whence many Women idly imagine, that the Womb ascends towards the Throat.

These are the principal Symptoms of hysterical Affections; but before the Paroxysm, and afterwards, many others are observable, which spare no Part of the Body: For, at the Approach of the Fit, the Patient is seized with a violent Pain in the Forehead, Temples, and Eyes, together with an Effusion of Tears, Dimness of Sight, an oppressive Pain, Terror of the Mind and Senses, Anxiety, and Uneasiness. Those who are seiz'd with the Disorder, are generally costive, and have frequent Inclinations to discharge their Urine, which is limpid as Water; mean time they are tormented with Restlessness, Anxiety, an almost suppress'd Respiration, and universal Languor. To these succeed a considerable Pain in the Loins, Cold, and Shivering: The Belly is indurated and inflated, the Navel shrinks very deep inwards, and then is perceived the Ascent of a sort of Globe from the Abdomen to the Hypochondria, and Diaphragm. Immediately after this begins a Palpitation of the Heart, with a Tremor; the Pulse is unequal and hard, and sometimes intermits; the Extremities grow cold, the Fauces seem contracted, and have a Sensation, as if they were compressed with a Cord; the Face is pale, Respiration is difficult, the Speech fails, and the Pulsation of the Arteries is scarcely perceptible. The Stricture of the Belly is so great, that no Wind can be discharged, nor a Clyster be administered, on account of the Resistance it meets with; and the convulsive Agitations of the Head and Limbs are, in some, so excessive, as to be easily perceivable, sometimes accompanied with Clenchings of the Hands, and sometimes without. Others lie buried without Sense or Motion, in a profound Sleep. The Faces and Necks of some are very red, and inflamed, and their Pulse strong; others break out into immoderate Laughter, and upon the Recovery of their Speech talk incoherently.

The Paroxysm, at certain Periods, will often remit; and then the Pulse, which was before weak, languid, and sunk, becomes higher, softer, and stronger, the Extremities recover their usual Heat, the Patient breaks Wind upwards, the Intestines rumble, and the Patient awaking, as it were, from a profound Sleep, recovers her Speech, Sense and Motion, but still complains of a heavy Pain in the Head, and a Languor and Heaviness of the Thighs, Legs, and whole Body. It is very surprising, that, from so instantaneous a Change, the Person, who was just before at Death's Door, should now appear to enjoy a most perfect State of Health. Some, from the long Continuance of this Disorder, have been mistaken for dead, and buried alive, which Accident might be avoided, if we would remember, that they seldom die without an Attack of an Epilepsy or Apoplexy.

Frederic Hoffman, we see, thinks the hysteric and hypochondriac Diseases different from each other, but our great Countryman, *Sydenham*, believes them the same. As the last quoted Author's Description of hysteric Complaints are extremely accurate and exact, it must not be omitted.

Of all the chronical Diseases, says he, this seems to occur most frequently; and as Fevers, with their Attendants, upon being compared with the whole Number of chronical Distempers, appear to constitute two thirds of the Diseases of Mankind; to hysteric Disorders, or such at least as bear that Name, amount to half the remaining third Part, that is, to one half of chronical Distempers: For very few of the Female Sex are entirely free from every Species of this Disorder, if those are excepted, who are inured to Labour; and not a small Number of the Men, who are accustomed to a studious and sedentary Life, are subject to the same Distemper. And though the Antients imputed the Symptoms, produced by hysteric Diseases, to some Disorder of the Womb, yet, if we compare hypochondriac Complaints, which, we think, proceed from certain Obstructions of the Spleen, or other Viscera, with the Symptoms which appear in hysteric Women, they will be found very nearly to resemble one another. But it must be allowed, that Women are much more subject to this Disease than Men; not that the Womb is more indisposed than any other Part of the Body, but for other Causes.

But the Frequency of this Disease is not more remarkable than the Variety of Forms, by which it discovers itself, as it assumes the Appearance of almost every Distemper with which miserable Mortals are afflicted. For it always produces Symptoms peculiar to whatever Part of the Body it seizes; and, unless the Physician be a Person of Judgment and Penetration, he will be deceived, and imagine such Symptoms to belong to some Disease essential to the Part affected, and not to the Hysteric Passion.

Sometimes, for Example, it attacks the Head, and causes an Apoplexy, which, also, terminates in an Hemiplegia, exactly resembling that kind of Apoplexy, which proves fatal to some aged and corpulent Persons, and arises from an Obstruction or Compression of the Nerves, occasioned by a copious Phlegm, contained in the cortical Part of the Brain. But the Apoplexy, in hysteric Women, seems to be produced by a very different Cause; for it seizes them frequently after a difficult Delivery, attended with great Loss of Blood, or proceeds from some violent Commotion of the Mind.

Sometimes it produces dreadful Convulsions, resembling an Epilepsy, attended with a Rising of the Belly and Præcordia towards the Throat, and with such strong convulsive Motions, that, though the Patient be otherwise but of a moderate Strength, she can scarcely be held by the Attendants, uttering, at the same time, Sounds wild and inarticulate, and beating her Breast. Women of a very languine and robust Constitution are most liable to this Species of the Disease, which is commonly named the *Strangulation of the Womb, or Fits of the Mother*.

Sometimes it seizes the external Part of the Head, between the Pericranium and the Cranium, and is accompanied with an almost intolerable Pain, fixed in one Place, not exceeding the Breadth of the Thumb, and likewise with enormous Vomiting. This Species I call the *Clavus Hystericus*, and those are most subject to it who are troubled with the Green-sickness.

Sometimes it falls upon the vital Parts, and produces such a violent Palpitation of the Heart, that the Patient is convinced those about her must hear the Heart strike against the Ribs. Slender and weakly Women, who seem consumptive, and Girls who have the Green-sickness, are principally afflicted with this Species.

Sometimes it affects the Lungs, causing an almost perpetual dry Cough; and, though it does not shake the Breast so violently, yet the Fits are more frequent, and the Patient's Senses are, also, disordered. This Species of the hysteric Cough rarely occurs, and principally happens to Women of a phlegmatic Constitution.

Sometimes, attacking the Colon, and the Parts below the *Scrobiculum Cordis*, it occasions a most violent Pain, not unlike the Iliac Passion, and the Patient is likewise seized with an excessive Vomiting of a certain green Matter, resembling porraceous Bile, and sometimes of an unusual Colour. After the Pain and Vomiting have continued several Days, and almost worn out the Patient, the Fit is terminated by an universal Jaundice. Besides, the Patient is seized with such Apprehension and Terror, as to reject all Hopes of recovering; and this Dejection and Despair, I have always observed to accompany this Species of the Hysteric Passion, which principally afflicts Women of a crude and lax Texture of the Body, and those who have greatly suffered by being delivered of large Children.

Sometimes this Disease affects one of the Kidneys, and, by the Violence of the Pain, it entirely resembles a Fit of the Stone, not only in the Nature of the Pain, and the Situation, but likewise in the excessive Vomiting, with which it is attended, and the Pain extending through the whole Duct of the Ureter. So that it is difficult to distinguish whether the Symptoms proceed from the Stone, or from an hysteric Cause; unless, perhaps, some Accident has a little before depressed the Woman's Spirits, or the Discharge of the green Matter by Vomit should inform us, that the Symptoms ought rather to be ascribed to an hysteric Disorder, than to the Stone. Nor does the Bladder always escape unaffected with this delusory Symptom, where a Pain and a Suppression of Urine are occasion'd, as if the Passages were obstructed by a Stone. This last Species in the Bladder rarely happens, but the former, in the Kidneys, more frequently; both usually attack such Women whose Health and Strength have been exhausted by frequent hysteric Fits.

Sometimes, affecting the Stomach, it occasions continual Vomiting; and, sometimes, fixing in the Intestines, it produces a Purging. But, though the green Matter often appears in both these Symptoms, neither of them are attended with Pain. Those who have been greatly debilitated by frequent hysteric Fits, are most subject to both these Species.

As this Disease affects almost all the internal Parts, so likewise the external Parts, and muscular Flesh, are sometimes attacked by it; sometimes causing Pain, and sometimes a Tumor in the Fauces, Shoulder, Hands, Legs, and Ancles; of which Kind the Swelling of the Legs is most remarkable. In dropsical Swellings it is always observable, that they increase towards Night, and pit, and retain the Print of the Finger, when forced against it; but, in this Tumor, the Swelling is largest in the Morning, nor does it yield to, or take any Impression from the Finger, and generally seizes but one of the Legs. If the Magnitude, Surface, and other Particulars, be observed, it, in them, differs so little from dropsical Tumors, that the Patient can scarcely be persuaded to believe it any other.

Nor do the Teeth themselves (which is scarcely credible) escape this Disease, tho' free from any Cavity, or apparent De-fluxion, that might produce Pain; which, nevertheless, is not milder, of shorter Duration, or more easily expel'd. But the external

external Pains and Swellings principally affect those Women, who, by the long Continuance and Violence of hysteric Fits, are almost entirely spent, and can scarcely be said to live.

Among all the tormenting Symptoms of this Disease, none is more frequent than a Pain in the Back, which usually attends even the slightest Degree of it. But one Consequence, which follows all the Pains above-mentioned, is, that, after they are removed, the Part which they affected cannot bear the Touch, and continues tender and painful, as if it had been beaten; but this Tenderness goes off by degrees.

One Circumstance, well worthy of Observation, is, that all these Symptoms are preceded by a remarkable Coldness, which generally continues till the Conclusion of the Fit. This Coldness, I have observed, is equal to that of dead Bodies, though the Pulse is not in the least disorder'd. Most of the hysteric Patients, who have been under my Care, have complained of a Lowness, or (as they say) a Sinking of the Spirits; pointing to the Region of the Lungs, when they would mark the Part affected. And it is well known, that hysteric Women sometimes burst into Laughters, and sometimes into Tears, without any apparent Provocation.

Of all the Symptoms of this Disease, the most peculiar and universal is, a copious limpid Urine, pure as rock Water; which, upon Inquiry, I find to be a distinguishing Sign of those Distempers, which we call Hysteric in Women, and Hypochondriac in Men. And in Men I have sometimes observed, that soon (almost the next Moment) after having voided an amber-coloured Urine, being suddenly affected with a violent Perturbation of Mind, they have had a plentiful Evacuation of Urine, clear as Crystal, with a rushing continued Stream. Nor did the Fit disappear, till the Urine resumed its former Colour.

Besides, all hysteric and hypochondriac Patients, who have long laboured under the Disease, are troubled with fetid, and, sometimes, highly acid Eructations, after eating, even moderately, in proportion to the Appetite; the digestive Faculty being greatly impaired, and the Juices thereby vitiated.

Hysteric Patients are frequently troubled with a Discharge of thin Saliva, not inferior to an artificial Ptyalism, which may be produced by the Spirits disturbing the Mixture of the Blood; whence it is rendered unfit to perform the natural Excretions; and the Serum is not discharged by the Kidneys, but derived to the Glands by the Extremities of the Arteries, and empties itself by the salival Ducts. To the same Cause may be ascribed those profuse Night Sweats, which seize hysteric Women; for the irregular Motion of the Blood, producing the ill State of the Serum, disposes it to be thrown upon the Habit.

Nor is it their only Misery, that the Body is so severely disorder'd and shaken, and is become like a House every-where threatening to fall into Ruins; for the Mind still suffers more grievous Afflictions than the Body. For it is the Nature of this Disease to be accompanied with an incurable Despair; so that they cannot endure to be told of the smallest Hopes of their Recovery; and they easily fancy themselves exposed to all the Ills that can befall Mankind, which they imagine impossible to be avoided, and therefore preface the most dismal Events to themselves. Upon little or no Occasion they indulge Terror, Anger, Jealousy, Distrust, and other grievous Passions; and are Enemies to Joy and Hopes, which, if they accidentally appear, as they seldom do, quickly vanish away, and agitate the Mind no less than the depressing Passions. They know no Moderation, and are constant only in Inconstancy. Those of whom they are one Minute extravagantly fond, the next they will abhor. Now they propose doing one thing, immediately they lay aside their Design, and engage in something of a quite contrary Nature, which still they do not conclude of, continually tormenting themselves in this manner with new Perplexities. What the *Roman* Orator asserts of the Superstitious, exactly agrees with these melancholy Persons. "Sleep seems to be a Relief from Labour and Inquietude, but even from that many Cares and Fears arise;" nothing being represented to them in their Dreams, but dismal Prospects of the Funerals and Apparitions of their deceased Friends. So much are they tormented, both in Body and Mind, that this Life seems no better than a Purgatory, in which they must expiate the Crimes by them committed in a pre-existent State. Nor is this the Case only of Lunatics and Madmen, but even of those, who, excepting these violent Commotions of the Mind, are Men of Prudence and Judgment; and who, in Depth of Thought and Solidity, greatly excel those whose Minds never felt the Pangs of these distracting Thoughts. Justly then did *Aristotle* observe, that melancholy Persons are endow'd with the greatest Capacities.

But those are only subject to this most dreadful State of Mind, who have long labour'd under this Distemper, and are at length overcome by it; especially if Misfortune, Grief, Anxiety, or too strong an Application to Study, accompanied with a bad Habit of Body, have contributed to the Disease.

It would require too much Time to enumerate all the Symptoms of this Disease; so different, and even opposite, are their Appearances. *Democritus* therefore, tho' he was mistaken in the Cause of the Disease, yet seems to have affirm'd, not without

Reason, in his Letter to *Hippocrates*, that *the Womb was the Source of six hundred Evils, and innumerable Calamities*. Besides the Variety of these Symptoms, they are so irregular, as not to be comprehended under any uniform Appearance; like those in other Distempers, but they are a mixed disorderly Train; and hence arises the Difficulty of writing the History of this Disease.

The procatastic or external Causes of it are either violent Exercises of the Body, or, more frequently, some extraordinary Commotion of the Mind, arising from some sudden Fit of Anger, Grief, Terror, or the like Passions. For this Reason, whenever I am consulted by Women, on any particular Disorder, the Cause of which does not appear from the common Rules of discovering Diseases, I always carefully inquire, whether they are not principally attack'd with it, after Sadness, Vexation, or some other Disturbance. If this they own, I am well assured, that the Disorder belongs to that Class of which we are now treating; especially if the Diagnostic is confirmed by a plentiful Discharge of limpid Urine. But to these Perturbations of the Mind, which generally produce this Disease, must be added, Emptiness of the Stomach from long Fasting, immoderate Evacuations, either by bleeding profusely, or administering Emetics or Cathartics, superior to the Strength of the Patient.

Thus far *Sydenham*. *Frederic Hoffman*, in his Dissertation on Hysteric Affections, proceeds thus to distinguish betwixt these and Hypochondriac Disorders.

We may, says he, easily distinguish between this and the Hypochondriac Affection. For tho' there are Symptoms common to both, each has some peculiar to itself. The Hypochondriac Disease continues very long, and requires a long Regimen; whilst the other affects principally pregnant or breeding Women, or Women just after their Delivery, Widows, those full of Blood, or labouring under any Uncasiness of Mind, or Virgins after a sudden Suppression of the Menstrues; and is often so perfectly cured, as not to return. Its Attacks are sometimes so unexpected and violent, that the Patient falls down void of all Sense and Motion, which never happens to Hypochondriac Persons; and this too is peculiar to Hysteric Disorders, that the most severe of them are often alleviated or removed, by only burning a Feather under the Nose: Besides, in the Fit, the abdominal Muscles are contracted, and the Navel drawn inwards; while, in the other, the Belly is rather distended. In the former, the Loins are seized with a violent incredible Coldness, perceptible to the Hands, and cannot be taken off by the Application of warm Napkins; the Top of the Head seems, as if it were bored thro' with an Augre, and therefore this Pain is called *Clavus Hystericus*; and many perceive the Ascent of a little Ball from the Abdomen; all which Hypochondriacal Persons are free from; nor are they equally subject to frequent Faintings, sudden Difficulty of Breathing, or violent Strangulations at the Fauces; and, lastly, none of them are ever mistaken for dead, and interred alive, as it sometimes happens in Hysterical Cases.

With respect to the Circumstance here mentioned, of being mistaken for dead, we have very antient Accounts of such Cases, the Truth of which is confirm'd by modern Histories. *Empedocles* is the first upon Record who took notice of this; and *Heraclides* is said to have wrote a Treatise upon it. See *APNOTA*.

These Distempers differ as to their Causes. For, as the Hypochondriac Affection exerts itself by Spasms and Flatules in the membranous Canal of the Intestines, Ventricle, and Oesophagus; and these Spasms arise from a Stagnation of the Blood in the nervous Coats of the Intestines, for want of a due Circulation through the hepatic Vessels, and the Ramifications of the Vena Portæ, so the Origin of hysteric Convulsions is to be deduced from the Uterus; from whence, by its Consent with the Bladder, uterine Convulsions are propagated to the Sphincter of the urinary Bladder, and the Patient feels a perpetual Stimulus to make Water, which hypochondriac Persons do not perceive, according to *Hoffman*; but *Sydenham*, with greater Truth, affirms the contrary. And, from this Diversity of Causes, says *Hoffman*, it will manifestly appear, that the same Symptoms may proceed from different Origins. Thus, a Difficulty of Breathing is common to both; but in one, it takes its Rise from an Inflation of the Stomach, which hinders the Descent of the Diaphragm; and in the other, from a violent Contraction and Compression of the abdominal Muscles. Lastly, They vary no less in their Events and Changes; for one generally terminates in Melancholy, Scurvy, a slow Fever, and the *Morbus Niger*: The other in an Epilepsy, mortal Syncope, *Furor uterinus*, and an acute Fever. Further, upon opening hypochondriac Subjects, we generally find the Viscera of the lower Belly, the Liver, Spleen, and Pancreas, hard, scirrhus, and corrupted; whereas the Cause of hysteric Disorders is seated in the Womb, or Ovaries. I thought it absolutely necessary to be thus particular in the Distinction between these two Distempers, to disengage Physicians from the Error, which they too easily run into, of confounding one with the other.

But there still remain other Diseases, which ought to be accurately distinguished from this. In a Syncope the Pulse absolutely ceases, the Face is pinched in, and like a dying Person's; but,

but, in a Suffocation of the Uterus, the Face is ruddy, and swelled, whilst the Pulse is languid, which continues for two or three Days; and this cannot be said of the former. In an Apoplexy, under a Privation of all Sense, and voluntary Motion, there is a Rattling in the Throat, with Difficulty of Breathing, and Quickness of the Pulse, which never occur in hysteric Disorders. It differs, likewise, from an Epilepsy, the Cause of which is seated in the Dura Mater, and the Beginning of the spinal Marrow, from whence proceed Convulsions of the whole Body; but this has its Seat in the Uterus; from whence Spasms are propagated to the spinal Marrow, and all the Nerves. *Celsus, Lib. 4. Cap. 20.* gives a very exact and elegant Description of the different Symptoms of both these Distempers. The Hysterics, says he, as well as the Epilepsy, sometimes destroy the Patient; but, in the former, the Eyes are never clos'd, there is no Foaming at the Mouth, nor universal Convulsions. It differs no less from Pains excited by the Stone; for, though they agree in many Symptoms, the calculous Patient is not afflicted with a Strangulation at the Fauces, Fainting, nor Difficulty of Breathing, and the Patient is not injur'd so much by the Smell of Perfumes. *Ballonius, de Virginum Morbis*, distinguishes between this and a Flatulence of the Primæ Væ, in the following Words: "We commonly observe, that young Women, who eat too much, especially if their Bellies are large, or if they indulge themselves in eating Summer-fruits, are afflicted with incredible Pains of the lower Belly; by which means Faintings, an unequal Pulse, and a Difficulty of Breathing, are produc'd, so that the Disorder is thought to be of the hysteric Kind, tho' it is not truly such. But, because, in this Impetus and Perturbation of the Humours, the Uterus, in consequence of the Consent of the Parts, can hardly remain unaffected, the Disorder is, therefore, said to be of the hysteric Kind, more in Compliance with Custom, than in Conformity to Truth."

It is to be observed, that all Women are not equally subject to this Disorder, but that it more particularly seizes Virgins, before their first menstrual Discharge, such as are marriageable, young Widows, and Wives; especially if they are full of Blood and Moisture, and have not borne Children: As, also, such as are brought up in Idleness, or are of a soft Texture, and delicate Constitution. The Antients, and particularly *Galen*, assert, that Widows, when their Menses cease, when they are past Child-bearing, and when Venereal Inclinations leave them, are subject to hysteric Affections. *Forestus, Lib. 28. Observ. 28.* says, that robust, masculine Women, if they are corpulent, full of Blood, and continent, tho' inclin'd to Venereal Enjoyments, and live at Ease, feeding upon hot, moist, and flatulent Diet, and indulging themselves in generous Wines, and Delicacies, which prove a Stimulus to Veneria, are frequently seized with this Disorder, without a Suppression of the Menses: And this is confirmed by *Ballonius*, in the Book already quoted, and by *Levinus Lemnius, Lib. de occultis Naturæ Miraculis, Cap. 6.* Besides, we have, among others, the Testimony of *Aræteus*, that young Women, whose nervous Systems are delicate and weak, who are of a tender Habit, and subject to the exorbitant Sallies of lawless Passion, are in greater Danger of this spasmodic Disease, than those who are robust, hardy, laborious, and of a more steady Mind. 'Tis also observable, that Women of sanguine, choleric Constitutions, and prone to impetuous Commotions of Mind, are subject to severe Convulsions of the nervous Parts. On the contrary, those of a phlegmatic and languid Disposition are not subject to violent Convulsions; but rather fall into more frequent Deliquiums, and are impatient of the least Noise, Breath of Wind, and sweet Odour.

Having premised thus much, we shall next inquire into the Seat of this Disorder, which *Higmore, Sylvius*, and *Sydenham*, confounding it with the Hypochondriac Affection, assert to be the Stomach, Pancreas, Mesentery, and Vena Portæ; and *Carolus Piso* no less erroneously places the Seat of this Disorder in the Brain, or rather the Beginning of the Nerves, without distinguishing between the Subject of the morbid Cause, and of the Patient's Death. But, with the Antients, I am fully persuaded, that it arises from the Womb, and its Membranes and Vessels, particularly those of the spermatic Kind; and that the spasmodic Stricture of these Parts communicates itself to the adjacent Nerves of the Os Sacrum and Loins; and thence, in consequence of the mutual Consent of the Parts, gradually seizes the nervous Membranes of the spinal Marrow, propagating itself from the inferior to the superior Parts. For which Reason we find, that when Women, after Delivery, are seiz'd with this Disorder, the Convulsions begin at the internal Orifice of the Uterus, or even of the Vagina, because, these Parts becoming cold and dry, the Discharge of the Lochia is suppressed, and the Body render'd collicive. Then the Spasms and Pains, accompany'd with a Sense of Cold, seize the Loins, and, passing thence to the abdominal Muscles, produce a Retraction of the Navel, accompany'd with a Hardness of the lower Belly; then they mount up to the Diaphragm, the intercostal Nerves, and the Par Vagum, and bring on a Difficulty of Breathing, almost to Suffocation, with a Strangulation of the Fauces; and this, for want of a free Circulation of the Blood thro' the Heart, is followed by a Palpitation thereof,

Fainting, and at length, when the Blood cannot pass thro' the Brain, by a Privation of Sense and Understanding. From all which, it is very evident, that hysteric Affections may be justly class'd among those of the spasmodic and convulsive Kind, which affect the whole nervous System.

I agree with the Generality of Physicians, that the direct and material Causes are, partly a Corruption of the seminal Juices, and partly a peccant State of the menstuous Blood in the Uterus; and each of these deserves a very accurate Examination. For we are sufficiently convinced by Inspection into human Bodies, that Males are furnished with peculiar Organs, call'd Testicles, where the subtile, spirituous, seminal Liquor is secreted from the Blood, which passes through the spermatic Arteries, and is lodged in proper Receptacles; but in Females no such Organs are found; instead of which, Nature has placed, at the Sides of the Uterus, certain globular Bodies, consisting of Blood-vessels, Membranes, and Vesicles, termed Ovaries; and the spermatic Vessels are carry'd in numberless Ramifications to the Substance of the Uterus. Since, therefore, the modern Naturalists look upon these Vesicles in the Ovary, wherein is contained an infinitely minute Fœtus, to be fecundated by the Male Sperm, it will be worth while to inquire, whether this can be vitiated, and in what manner; then, how it gives Birth to hysteric Disorders, after its Corruption.

For the better understanding of which, we must premise some Things, especially with respect to the Alterations the human Body undergoes, particularly about the Years of Puberty. We observe then, that Girls, about the fourteenth Year of their Age, grow more ruddy, their Faces become fair, and their Breasts swell; that, in Boys of the same Age, the Beard grows, the Voice is more sonorous, the Strength and Vigour of every Part of the Body is increas'd, and that both Sexes are inclined to Venereal Enjoyments. For, as in Males there is a greater Afflux of the Blood to the Testicles, for the Secretion of the seminal Fluid, and Erection of the Penis, so in Females a more copious Quantity of Blood is convey'd to the Uterus, and its Vessels, to fecundate the Ovum, if there is any; and hence, in Cases where there is no Impregnation, we deduce the Cause and Origin of the Menses. This naturally leads me to consider the musical and wonderful Harmony between the Passions and the vital Motion of the Blood, towards certain Members, especially those destin'd to Procreation. For this copious Afflux is directly followed by a Desire of Enjoyment; and, on the other hand, when the Contemplation of a desirable Object provokes Venereal Inclinations, this Circumstance excites a greater Afflux of Blood and Spirits to the Organs destin'd to the Purposes of Generation.

Whenever the Humours flow too plentifully through the spermatic Vessels, to the Ovaries and Uterus, whether it proceeds from Age, or salacious Inclinations, the nutritious Lymph is collected in those Parts, where it stagnates, corrupts, and gives Rise to hysterical Disorders. Consequently, Girls, about Fourteen, and sprightly, unmarried, wanton, warm, sanguine Women, are subject to this Disorder in the highest Degree. *Charlæton, Exercit. Pathol. 7.* confirms this Opinion in the following Passage: "Some Women, says he, of warm Constitutions, are thrown into Hysterics by the abundant Stimulation of the spermatic Juices." For this Reason the Antients attributed it to a Retention of the seminal Matter, and either prescribed Marriage, or gave Medicines to promote the Discharge thereof. See *Zacutus Lusitanus*, and *Petrus Forestus*; and they add, that, after the Paroxysm, a large Quantity of moist Liquor is discharg'd from the relax'd Pudenda. See *Galen. Comment. in Hippocratem, Lib. 6. de Locis affectis, C. V.*

That corrupted seminal Juices may produce Hysterics, appears, first, from their Tendency to prejudice the pure Juices circulating in the Nerves and Fibres, by their noxious Effluvia; and it is well known, that many other kinds of Effluvia will excite hysteric Paroxysms.

A second Reason is, that the violent Distention of the Vessels, and nervous Membranes, by this preternatural Collection of Humours, must cause spasmodic Motions, which are propagated thro' the whole nervous System. And this no one can doubt, who will but consider, that hypochondriacal Affections, and severe Convulsions in the Colic, frequently arise from a bare Stagnation of Blood, in the Coats of the Stomach and Intestines.

That this is really the Case, farther appears from the Dissection of Women, who have died of hysterical Disorders. Thus *Vesalius, Lib. 5. de Humani Corporis Fabrica, Cap. 15.* says, that he has found the Testicles of hysteric Women larger than a Ball, replete, sometimes, with a yellow, and sometimes with a fetid Humour of other Colours. *Riolanus, Anthropol. Lib. 2. p. 35.* says he found an hard Testicle larger than one's Fist.

Binnengerus, Cent. 2. Obs. 90. relates, that he saw the Testes (Ovaria), together with the Fallopian Tubes, and spermatic Vessel, excessively tumid, inflared, and stuffed with a thick, white, and somewhat indurated Humour, like a Steatoma, and of half a Pound Weight, in a Woman who died of Hysterics.

Mangeta, in M. N. C. D. 1. a. 1. Obs. 32. says, he met with an Uterus and Testicles turgid with a corrupt seminal Matter, not unlike an hard Curd. And *Diemerbroeck, Anat. Lib.*

de Ventre inferiore, Cap. 24. relates, that in hysterical Women he has generally found something of a Tumor about the Womb, and in that an æruginous or yellow Liquor. From all which it is very evident, in what Manner the vitiated seminal Juices produce this Disorder.

Let us now consider the second Cause, which, we said, was a Corruption of the menstrual Blood. That Irregularities, however, of this critical Evacuation, are not always the immediate Causes of hysterical Disorders, I am sensible; because Virgins, and Women in Years, have been afflicted with Hysterics, without any Suppression of the Menfes, or habitual hæmorrhoidal Flux; which *Piso* acknowledges. In the mean time, we often observe, that, during hysterical Disorders, this menstrual Discharge often becomes irregular, which should, at that time, be look'd on as an Effect and Symptom of the Distemper; because Convulsions are of such a Nature, as to disturb and prevent Excretions of all kinds. But, certainly, this must be acknowledged as one of the Causes; since Virgins, at the Age of Puberty, from a Cohibition of the Menfes, at that time approaching, and the consequent Distention of the Vessels; and Women, whose Discharge is something difficult a little before the Evacuation, are much afflicted with hysterical Affections. And the *Clavus Hystericus*, fix'd in one Point of the Head, which is often accompanied with Cardialgias, and Vomitings, will corroborate this Argument; and we are furnish'd with Instances of Hysterics, and even Epilepsies, attacking Women of a delicate Frame, after a sudden Suppression of the Menfes, caus'd by a Fright.

Pregnant Women, especially those of a sanguine-choleric Constitution, are not exempt from hysterical Affections; for I have seen some, about the third or fourth Month, on account of violent Anger, seiz'd with a Suffocation, Loss of Strength, and a Syncope of some Hours Duration; but they were happily reliev'd by opening a Vein, and the Application of spasmotic and nitrous Medicines. That, after Delivery, a Suppression of the Lochia will give Birth to Hysterics, *Hippocrates, Lib. de Natura Mulierum*, assures us. And I myself have known Women fall into violent Hysterics, from too cold an Air admitted to the Abdomen, an inconsiderable Commotion of the Mind, or sitting up too long, the first Days after their Delivery; and, a Suppression, or Defect, of the Lochia, unless seasonably reliev'd by Phlebotomy, will produce the same Effects. An immoderate or too long-continued Flux of the Lochia, upon the Accession of any slight external Cause, will excite hysterical Disorders, particularly Faintings, and Refrigeration of the Extremities; which, however, are more easily remov'd, provided proper Measures are pursu'd.

Whatever, therefore, conduces to a preternatural Afflux of the seminal Juices to the Region of the Uterus, or produces any Impediment, Difficulty, or total Suppression of the menstrual Flux, may be esteem'd an occasional Cause of hysterical Affections. Among these Causes we may principally reckon the Years of Puberty, and an Abstinence from habitual Venereal Enjoyments. To these may be added a sanguine or choleric Constitution, Salacity, an heating, vinous, delicate Diet, strong Passions, and violent Commotions of the Mind and Body. On the contrary, a sedentary Life, thick, acid, cold Food, a Neglect of Phlebotomy in Constitutions accustomed to it, and continual Uneasinesses, Sorrow, and Cares, by inspissating the Fluids, weakening the Solids, and, of consequence, rendering the menstrual Discharge difficult, contribute to excite this Disease; nor is it promoted less by a sudden Fright, or Refrigeration of the Body, which, particularly at the Time of the menstrual Flux, puts a Stop to this Evacuation. Lastly, Perfumes, as Amber, Civet, Musk, and the like, from their peculiar Disposition, induce violent Paroxysms.

This Distemper, however terrible, with respect to its Symptoms, is not very dangerous, unless it happens in a weak and valetudinary Constitution, or is preposterously treated by ill-adapted Medicines, or an improper Regimen. But no Distemper so readily induces Epilepsies and Convulsions as Hysterics, inasmuch that by these we may distinguish hysterical from hypochondriacal Disorders. Again, we find Relapses very common, either from a Miscarriage, difficult Labour, or any slight nervous Disorder. Nor is it unusual to meet with a Complication of the hysterical and hypochondriacal Affections, which is generally of long Continuance, and difficult to be cured, especially in Patients of a sedentary Life, and strong Passions, or such as pursue an improper Diet and Regimen, which disturb the menstrual and hæmorrhoidal Discharges, and cause such a Complication of Disorders.

CURE.

Having thus fully explained the Genius, Seat, Causes, and Differences of hysterical Affections, we shall now proceed to the Method of Cure. But as the Cure of all Diseases requires a thorough Knowledge of the Patient's Constitution, and an Administration of Remedies proper to remove the Cause, so, in hysterical Cases particularly, the Physician's principal Care must be to make himself Master of these Circumstances, since not

only the Causes of the Distemper, but, also, the Nature of Women, are, according to *Hippocrates*, found widely different.

In order to the Cure of Hysterics, the first Inquiry to be made is, whether the Patient's Body is plethoric, or exhausted of Blood and Strength: In the first Case, nothing affords so immediate Relief as Bleeding, in case of Spasms and Convulsions, which, in sanguine Constitutions, are the most excessive. This must be proportioned to the Redundance of Blood, and if that is very great, it may even be repeated. I have known this give immediate Relief to Women, who had lost all manner of Sense and Motion, and lay, as it were, apoplectic, with their Faces very red and tumid; and, also, to sanguine Virgins, almost deprived of their Respiration, and Speech, or seized with an epileptic Paroxysm, on account of a sudden Suppression of the Menfes by a Fright. Many practical Authors prefer Bleeding to all other Remedies, when the Disorder is excited by a Redundance of Blood, or Retention of the Menfes. *Mercatus* and *Rodericus a Castro, Hæstederus, Dec. 4. Cas. 2. Highmore, L. de Passione Hysterica; Panarolus in Introductiois, Sententia 2. Obs. 30. Riverius, Septalus, and M. N. C. D. 1. Anno 10. Obs. 42. & 58.* were strongly of this Opinion, as well as many others.

During the Paroxysm, all our Endeavours should be directed to mitigate the Violence thereof. Pursuant, therefore, to the Directions of *Hippocrates*, I advise the Application of setid Substances to the Nose, as Castor, *Ala tætida*, and burnt Partridge-feathers, which last is a popular Remedy, and of great Efficacy. Among compound Medicines, the acid Water of Swallows, with Castor, and urinous Spirits, impregnated with Oil of Rue, and Essence of Castor, may be applied to the Nostrils with very good Effect, but, above all, a Rag previously dip't in strong Vinegar.

I have seen Women, as it were, lethargic, and in all Appearance at the Point of Death, recovered, in a very surprising manner, by the Use of these Medicines; for the saline volatile Vapours of these Remedies, by penetrating into the nervous Membranes of the Brain, inspire them with new Strength and Vigour, restore their lost systolic Power, and disperse the Blood and Humours, stagnating therein. Women, after Delivery, find great Benefit from a Compression of the Abdomen with a *Russia* Leather Girdle, the Smell of which is very serviceable, both to hysterical and hypochondriacal Persons. In the Fit, great Relief may be expected from an immediate Evacuation by Stool; for the Patient is, in this Case, generally excessive costive; for this Reason Clysters are of excellent Use, if prepared of proper Ingredients, as the Roots and Seeds of Lovage, which, in this Case, are Specifics, the Flowers of common Chamomile and Elder, the Herb Paul's Betony, and the Four carminative Seeds, boil'd in Whey, with an Addition of a sufficient Quantity of Oil of Dill, or Chamomile, made by Coction. But, when the Stricture of the Belly and Rectum will not admit of this Remedy, that Defect must be supplied by an Injection of pure expressed Oils or Lards, such as the Fat of the Badger, or the Beaver, the Oil of Dill, and some others of a like Quality, by which the *Menfes* and *Lochia* are, also, considerably promoted.

For external Remedies, the Ancients recommend the Application of setid Plasters, such as those prepared of *Opopanax*, *Bdellium*, *Gambanum*, *Sagapenum*, and *Ala-tætida*, to the Navel, or Pudenda. *Forestus*, in *Lib. 28. Obs. 32.* gives a remarkable Instance of the Efficacy of these. Nor must we omit taking notice of the Application of Perfumes immediately to the Uterus, as these are recommended by *Hippocrates* and *Galen*. And though I can affirm nothing of them from my own Experience, I would not absolutely reject them, as they seem very likely to succeed, because Perfumes, as Musk, Civet, Storax, and Benzoin, of which Suffumigations for the Uterus are prepar'd, by their sulphureous and salutary Exhalations, relax the constricted Fibres of the Uterus, inasmuch that, as *Forestus* observes, their Application frequently causes a Discharge of thick putrid Humours, immediately from the Part.

Amongst internal Remedies, the most efficacious are, the Essence of Castor, mixed with three Parts of the anodyne Liquor, and the antispasmodic Pills, prepar'd of Myrrh, *Sagapenum*, *Opopanax*, *Ala-tætida*, Castor, Saffron, and the Theriaca, each half a Dram, adding, sometimes, six or eight Grains of Camphire, and Laudanum Opiatum. From each Scruple of this Mass ten Pills may be made, two of which are to be taken every Hour, with a due Quantity of the Water of Chamomile-flowers. I have often seen surprising and almost incredible Effects produced by this Medicine.

These are the principal Remedies, during the Continuance of the Fit; let us now consider, what is proper to remove the Cause, when the Paroxysm is over. Guided, therefore, at once, by Reason and Experience, we assert, that the *Primo Viæ*, which are generally filled with a Load of peccant Humour, are to be purged by proper Medicines; which Practice is so much the more necessary, because, during the Paroxysm, large Quantities of Anodynes, setid Substances, and such as stop violent Commotions, have been exhibited. For answering this Intention, the most efficacious Medicines are, the *Pilule Beberianæ*, or some others of a like Virtue, especially when, by way of Stimulus, a due Quantity of the *Extractum Panthymagnum Cralli*, of pre-

pared Cinnahar, and a Grain or two of the Extracts of Saffron and Castor, as Antispasmodics, are added. When, by this means, the *Primæ Viæ* are sufficiently purged of the peccant Humours, such Medicines are to be used, as, being possess'd, at once, of a sedative and diaphoretic Quality, may direct the Motion of the Blood and Humours to the external Parts, and, by promoting a free Perspiration, procure the Dissipation of the peccant Serum. The Medicines of greatest Efficacy for answering this Intention are, the Spirit of Hartshorn, or that of Ivory purified by Rectification; the *Spiritus Bezoardicus Buffii*, the succinated Spirit of Hartshorn, and the Spirit of Tartar, duly prepared; which volatile Spirits may be commodiously exhibited in small Doses, either by themselves, or in Conjunction with the anodyne mineral Liquor, the Essence of Saffron, Castor, or Amber, or even with the Liquid Laudanum, than which Medicines, prudently used and exhibited, according to the Circumstances of the Patient, nothing is more beneficial and efficacious; for, as, by the Assistance of Nature alone, these spasmodic Disorders are often spontaneously terminated by profuse Sweats, it ought to be the Physician's principal Care to obtain this End, and act, as it were, in Concert with this Tendency of Nature.

For answering the same End, with these we may interpose other Medicines of no less Efficacy, such as the Powders which are possess'd of a kind of peculiar and specific Virtue, in mitigating Spasms, and convulsive Motions. Of this Kind, says *Hoffman*, are the *Pulvis Marchionum*, the *Specificum Cephalicum Michachis*, my Antiepileptic Powder, as, also, that prepar'd of a dry'd human Secundine, Mistleto, Amber, Coral, Saffron, Castor, and Cloves. By the prudent Use of these I have often seen convulsive and epileptic Motions allay'd and mitigated in a most surprising manner. But Medicines of this Kind must not be used till the Plethora is removed, and the peccant Humour sufficiently evacuated by Stool.

Since this Disorder, unless judiciously treated, is very subject to recur, or to degenerate into some other chronical Disorder, especially of the hypochondriac Kind, these Misfortunes are to be guarded against with all possible Care; which is done by having a due Regard to the *Menses*, after the Termination of the Disease, whether an irregular Evacuation of these produced the Disorder, or whether the Discharge was faulty, during the Continuation of the Disease, as it generally is. For promoting the *Menses*, therefore, and preserving them in that State which Nature requires for Health, I have found nothing more efficacious than the internal Use of the *Caroline Waters*, in Conjunction with a proper Regimen; for hot mineral Waters are generally observed to be more safe and powerful in the Cure of Disorders peculiar to the Sex, than cold mineral Springs. Those Medicines are, also, to be used, which, by restoring the Strength and Tone of the *Uterus*, remove the Disorders arising from its preternatural Weakness. The most efficacious Medicines of this Kind are temperate Balsamics, prepared of Myrrh, Amber, butter and carminative Extracts, especially those of Zedoary and Orange peel, reduced to an Elixir, with a gently spirituous Menstruum, and frequently used; for these both excellently promote the *Menses*, and assist the Digestion, especially when, at the same time, the intestinal Fæces are duly eliminated by temperate Balsamics, and the *Pilule Polychrestæ*.

There still remains another highly natural, and efficacious Method of Cure, which is, that to be expected from Marriage. Reason, Experience, and the Authorities of the greatest Physicians, concur in pronouncing Matrimony highly beneficial in removing hysterical Disorders. *Hippocrates*, in his *Treatise de Prognosis Morbis*, recommends it for this Purpose. *Valesius de Turanta*, in *Phisom. Pharm. Lib. 6. Cap. 10.* uses the following Words: "It, says he, any young Woman labours under Disorders arising from a Retention of the *Menses*, let her marry, and her Misfortunes will be removed." *Capivaccius* gives some very extraordinary Directions on this Occasion, which are not extremely decent, nor of much Importance. *Duretus*, in *Expositione ad Caput 59. Hollerij*, and *Zacutus Lusitanus 52. Præx. Med. Admirand. Obs. 91.* give us memorable Instances of the happy Effects produced by Matrimony, in the Cure of hysterical Disorders.

PRACTICAL CAUTIONS.

When hysterical Affections proceed from an Orgasm of the uterine Lymph, all warm Medicines are extremely pernicious; as appears from many Instances in *Rodericus a Castro de morbis mulierum, Lib. 2. Ludovicus Mercatus, Lib. 2. de Morbis Uteri, Cap. 3.* We should, therefore, temperate the Acrimony of the Lymph, and check the Orgasm of the Blood and Humours, by cooling Drink; as Water, Whey, and nitrous Liquors; the Efficacy of which, for the Extinction of Salacity, *Timæus a Gulien-Æ* greatly recommends.

Since the Nature of Women is so very various, it is no Wonder, that the same Remedy differs in its Operation upon different Subjects. Thus I have seen some unable to bear the Application of Fetils, either internally or externally; whilst others have found immediate Relief from them. Some I have

seen, who were oppressed with a Syncope in every Paroxysm, restored by only sprinkling a little Water upon the Face, when stronger spirituous Remedies had been tried in vain. Some are of so hot a Constitution, that they cannot bear warm Medicines, either externally or internally; and suffer greatly from hot nervous Baths, Fomentations, and Ointments. Some are eased by Anodynes and Opiates, whilst others, whose Nerves are very much weakened, find them extremely prejudicial. Some, again, have I met with, who were relieved by a Draught of Water only, which has been very pernicious to others. Of such Consequence is it, as *Hippocrates* long ago observ'd, *Lib. 1. and 2. de Morbis Mulierum*; to be well acquainted with the Natures of Women.

Though, in our Days, the hypochondriac Disorder is never mention'd among the Diseases, which Women are subject to, but every Affection attended with Pains, Spasms, Flatulences, and Anxieties, is termed Hysterical; yet an accurate Distinction between them is absolutely necessary. For as, in hypochondriac Cases, Exercise, carminative, spirituous, volatile, stomachic, and aromatic Medicines, Salts of a neutral and stimulating Kind, Mineral Waters, bitter Purges, and, above all, Chalybeates, are most serviceable, so are they very noxious to hysterical Women; who are more reliev'd by Bleeding, Rest, Anodynes, nitrous, antiepileptic, and cooling Remedies, with the drinking cold Water and Whey, and an Abstinence from all warm Things, even Wine.

To prevent a Relapse, and secure the Distemper from becoming chronical, it will be proper to regulate the Evacuations by Stool, and the menstrual Discharge, by a proper Diet and Regimen, always observing not to use any great Quantity of Aloes and resinous Gums. For I can affirm, from my own Experience, that they increase and prolong the Disorder, particularly in Women, who are plethoric, or of a soft and tender Frame. In such Cases Currants gently boiled in an Infusion of Rhubarb, are exhibited with much better Effect. Mean time all sorts of Cakes, Sweet-meats, and Sallads, are carefully to be avoided; for as an immoderate Use of these things, together with an idle Life, too scanty and incongruous drinking, and ungovernable Passions, give Birth to hypochondriacal and hysterical Disorders, so People already affected with these Disorders ought more rigidly to abstain from them.

Though daily Experience convinces us of the Usefulness of Castor Medicines in both Diseases, yet we must not put too much Confidence in them, because they are not capable of removing the Cause; and too great a Quantity of them is prejudicial, as their anodyne Vapour induces a dangerous Weakness, with respect to the Head and Nerves.

If hysterical Women, after Delivery, are costive, they should not be purged with highly stimulating neutral, and, as they are called, digestive Salts; for by large and frequent Doses of these Salts I have seen a dangerous Increase of the Symptoms.

In a violent hysterical Suffocation, nothing is more efficacious in rousing the Patient, than volatile Sal Ammoniac, mix'd with Essence of Castor, or the Water of Swallows, with Vinegar and Castor applied to the Nostrils; and Frictions with a rough Cloth about the Præcordia and Feet. These are far more proper than the Smoke of highly fetid Substances, such as Feathers; as, also, than *Ala-farida*, or Camphire, which few can bear.

I have found extraordinary Benefit, says *Hoffman*, in hypochondriaco-hysterical Subjects, of a cholerick, and very sensible Constitution, from precipitating nitrous Powder, mix'd with an equal Quantity of Amber, and a small Quantity of Saffron; as, also, from the frequent Use of my Elixir Viscerale, mix'd with an equal Quantity of my anodyne Liquor.

For alleviating the Paroxysms, in the Intermission, nothing is better than Clysters, composed of gentle, pargoric, carminative Herbs, with the Addition of a large Quantity of express'd Oil; for they have an immediate Effect upon the Womb, by relaxing it by their temperate Warmth.

After the Fit, very temperate Baths, for the Feet, are highly efficacious; but, if too hot, I have more than once observed, particularly in plethoric Subjects, that they are too subject to occasion a Relapse. *Frederic Hoffman*.

The celebrated *Sydenham* proposes the following Methods of Cure for hysterical Disorders.

The principal curative Indication, in this Disease, appears to be that which directs the strengthening of the Blood, which is the Fountain and Origin of the Spirits; that the invigorated Spirits may preserve an Order, agreeable to the Whole, and every Part of the Body. But as this Disorder of the Spirits may, by its long Continuance, have vitiated the Juices, it will be proper to diminish their Quantity by bleeding and purging, if the Strength of the Patient can bear these Operations, before we proceed to strengthen the Blood; and this Design is difficult to be executed, whilst Collections of sculent Humours obstruct the Passages. But as the Pains, the Vomiting, and the Purging, are sometimes too excessive, that they cannot safely be neglected, we are to disregard the Cause for a time, and begin the Cure by quieting the Symptoms, for that Purpose exhibiting an Opiate. And, as we learn from Experience, that there are many feild Medicines adapted to compose the Commotions of the Spirits, which

which have, therefore, been named Hystrics, let them be prescribed when such Intentions are to be answered.

With this View, I first order Bleeding in the Arm, and then a Purge, for three or four successive Mornings. During these Evacuations, the Disease seems rather to increase than diminish, because of the Commotion by them excited. Of this Circumstance I carefully inform the Patient, to prevent that Despondency which is so natural to this Disorder. However it be, Part of these foul Humours, which we suppose to have been collected by the long Duration of the Distemper, must be remov'd before the primary Intention can be conveniently answer'd.

For the next thirty Days I prescribe chalybeate Medicines, which serve to impregnate the vapid and languid Mass of Blood with a certain volatile Ferment, whereby the drooping Spirits are rous'd and reviv'd. This is manifest from the Effects of Steel in the Green-sickness; for it evidently raises and quickens the Pulse, warms the external Parts, and changes the pale death-like Colour of the Face into a florid Red. But it ought carefully to be observ'd, that Bleeding and Purging are not always to be premis'd to Chalybeates, with which we ought to begin when the Patient is extremely weaken'd, and almost spent with the Duration of the Disease.

Steel is, in my Opinion, best exhibited in Substance; for as I have never observ'd or heard, that it was prejudicial to the Patient when taken in this manner, so repeated Experience has convinced me, that it cures with more Ease and Expedition than any of the common Preparations: For officious Chymists rather lessen than improve the Virtues of this and other excellent Medicines, by their Methods of preparing them. I have likewise been inform'd, that the crude Ore operates more efficaciously than Iron refin'd by Fusion; and, if this Circumstance be true, it strongly supports our Assertion: But I am not certain of it from my own Experience. This, however, I undoubtedly know, that the most excellent Remedies hitherto discover'd derive their principal Virtues from Nature; and therefore Antiquity gratefully styl'd them the Remedies, or Hands, of God, and not of Man. But, that a Medicine may produce surprising Effects from its own native Power and Goodness, in whatever Form it is administer'd, is evident from the admirable Virtues of the Bark and Opium. Nor does the Skill of a Physician so much appear in preparing Medicines, as in selecting and adapting those which Nature has produced, and liberally bestows. Our only Business, therefore, is to reduce them to a Form, by which their Substance, or Virtues, may be the more effectually communicated to the Body; a Business which we are sufficiently enabled to execute. Next to Steel in Substance, I would use its Syrup, which is prepar'd by infusing the Filings of Iron, or Steel, in *Rhenish* Wine cold, till it is sufficiently impregnated, afterwards straining it off, and boiling it, with a sufficient Quantity of Sugar, to the Consistence of a Syrup.

During a Course of Chalybeates I never exhibit Cathartics, because they seem to destroy the Effects of Steel, both in hystric and hypochondriac Disorders. For when I principally intend to quiet the Spirits, and to restore and strengthen their Frame, the gentlest Purge undoes, in one Day, all the good Effects which Steel has produced in a Week. And, doubtless, when this Practice of Purging is prescrib'd during the Use of chalybeate Waters, they are thereby render'd less efficacious. Nor am I ignorant, that some have recover'd, not only when Purgatives have been interpos'd, but even when they have been daily administer'd with Steel; but the Success is here rather to be ascribed to the powerful Virtues of the Steel, than to the Skill of the Physician.

If it be objected, that Steel Filings may stick to the Bowels, and do Mischief, unless Cathartics are sometimes exhibited; I answer, that I never observ'd any such bad Consequences produced by them, and it is more probable, that the Steel, without Cathartics, being envelop'd in the mucous and excrementitious Humours of those Parts, will at length be evacuated with them, than if they are agitated by Purgatives, which occasion unusual Gripings and Contractions of the Intestines; by which means the Particles of Steel, which adhere to their Coats, may be more deeply fixed.

During a Course of Chalybeates, in order to strengthen the Blood, and animal Spirits, hystric Medicines are to be administer'd, in such a Manner and Form as are most agreeable to the Patient; though, if they can be taken in a solid Form, they will more effectually influence the Spirits, than in a liquid, such as a Decoction, or Infusion; for the Substance itself affects the Stomach longer, and communicates its Virtues more intimately to the Body.

In order to answer all the Indications above enumerated, I usually direct the following few common and simple Remedies, with Success.

Let eight Ounces of Blood be taken from the Right Arm.

Take of Galbanum, dissolv'd in Tincture of Castor, and strain'd, three Drams; Tacamahac, two Drams: Mix them together, for a Plaster, to be applied to the Navel.

Next Morning let the Patient begin the following Pills.

Take of the greater Pil. Cochiae, two Scruples; Castor, powder'd, two Grains; Balsam of *Peru*, four Drops: Make them into four Pills, to be taken at five in the Morning, sleeping after them.

Let them be repeated two or three times, either every Morning, or every other Morning, according to their Operation, or the Strength of the Patient.

Take of the distil'd Waters of black Cherries, Rue, and Briony, each three Ounces; Castor, tied up in a Piece of Linen, and suspended in the Phial, half a Dram; fine Sugar, enough to sweeten the Whole: Mix them for a Julap; of which let four or five Spoonfuls be taken when the Patient is faint, or low-spirited, dropping into the first Dose, if the Fit be violent, twenty Drops of Spirit of Hartshorn.

After having taken the purging Pills, as above directed, let the Patient proceed to the Use of the following Remedies:

Take of the Filings of Iron, eight Grains; Extract of Wormwood, enough to make it into two Pills, to be taken early in the Morning, and at five in the Afternoon, for the Space of thirty Days, drinking after each Dose a Draught of Wormwood-wine.

Or, for daily Use,

Take of the Filings of Iron, and Extract of Wormwood, each four Ounces: Mix them together. Let sixteen Grains, or a Scruple, of this Mass be made into three Pills, and taken at the times above-mentioned.

Or, if a Bolus be more agreeable,

Take of the Conserve of *Roman* Wormwood, and Orange-peel, each one Ounce; candy'd Angelica, Nutmeg, and *Venice* Treacle, each half an Ounce; candy'd Ginger, two Drams; Syrup of Orange-peel, enough to make the Whole into an Electuary.

Take of this Electuary, a Dram and an half; the Filings of Iron, finely pulveriz'd, eight Grains; Syrup of Orange-peel, enough to make them into a Bolus, to be taken every Morning, and at five in the Afternoon, with a Draught of Wormwood-wine after it.

Take of the finest Myrrh, and Galbanum, each one Dram and an half; Castor, fifteen Grains; Balsam of *Peru*, enough to make them into a Mass, of every Dram of which let twelve Pills be form'd; three whereof must be taken every Morning during this Process, with three or four Spoonfuls of compound Bryony-water after them.

But if these Pills should loosen the Belly, as sometimes they do, in such as are easily purg'd, on account of the Gums they contain, let the following be substituted in their stead:

Take of Castor, one Dram; volatile Salt of Amber, half a Dram; Extract of Rue, enough to make them into twenty-four Pills, three of which are to be taken every Night.

But here it must be observ'd, that Chalybeates, in whatever Form or Dose they are exhibited, sometimes bring upon Women great Disorders both of Body and Mind, not only in the Beginning, which commonly happens, but during the whole Course. In this Case the Use of Chalybeates is not to be interrupted; but, that they may be enabled to bear them, a proper Dose of Laudanum must be given every Night, for some time, in any hystric Water.

But when the Disease is gentle, and seems not to require the Use of Steel, I judge it sufficient to bleed once, and purge three or four times; and then to order the alterative hystric Pills above describ'd, every Morning and Night, for ten Days. This Method is generally successful, when the Distemper is not severe; and the Pills alone have often excellent Effects without Bleeding or Purging.

It is, however, to be carefully remark'd, that some Women, on account of a certain Peculiarity of Constitution, entertain so great an Aversion to hystric Medicines, which are so generally serviceable in this Disease, that, instead of being reliev'd, they are greatly injur'd by them. In these, therefore, they are to be entirely omitted; for, as *Socrates* wisely observes, *it is fruitless to oppose the Tendency of Nature*.

This Idiosyncrasy is so remarkable, and so common, that, unless Repud be had to it, the Life of the Patient may be endanger'd. And in this Circumstance hystric Remedies are far from

from being singular : I shall produce only one Instance. Some Women, in the Small-pox, cannot bear Diacodium, because it occasions Giddiness, Vomiting, and other hysteric Symptoms, whilst liquid Laudanum agrees very well with them.

In this manner hysteric Diseases, and most kinds of Obstructions, but especially the Green-sickness, are generally cured. But if the Blood be so weak, and the irregular Motion of the Spirits so considerable, that the Disorder will not yield to a Course of Chalybeates, as above directed ; the Patient must drink some Steel-water, such as that of *Tunbridge*. For the chalybeate Virtues of these Waters is more intimately communicated to the Blood, on account of the large Quantity that is drank, and, also, of their Agreeableness to Nature ; and proves more effectual in curing Diseases, than the choicest Preparations of Iron, however magnified by the Chymists. But this Caution must be particularly observ'd, that if any Disorder happens, which may be refer'd to hysteric Symptoms, the Waters are to be omitted for a Day or two, till that Symptom disappears, which would otherwise hinder their Passage. For though these Waters are not so subject to agitate the Humours, and occasion a Disorder of the Spirits, as the gentlest officinal Cathartic, yet they, in some Degree, occasion such a Disturbance by their diuretic Quality, and, besides, they often purge. But if the Waters themselves obstruct their own Passage, by raising Commotions in the Humours and Spirits, how improper must it be to prescribe Cathartics, once or twice a Week, during the Course ! and how much more absurd, to mix Purgatives with them ; which occasion these and other mineral Waters to operate more slowly and difficultly !

If the Disorder will not yield to Steel-waters, recourse must be had to hot sulphureous Waters, as those of *Bath* : Drink them three Mornings successively, and bathe in them the fourth ; drinking and bathing in this manner alternately for two Months. For the Course must be continued not only till the Patient finds some Relief, but till he perfectly recovers.

Venice Treacle alone, frequently us'd, and continued for a sufficient time, has an excellent Effect in this Disease, and many others proceeding from a Want of Heat and Digestion.

If the Patient be not of a slender and bilious Habit of Body, an Infusion of Gentian, Angelica, Wormwood, Centaury, Orange-peel, and other strengthening Simples, in *Canary Wine*, does great Service, a few Spoonfuls of it being taken thrice a Day ; and I have found some hysteric Women remarkably reliev'd by drinking, for some Nights successively, a large Draught of *Canary* alone, at Bed-time.

I have known several hysteric Women, and hypochondriac Men, who were reduced to great Weakness, recover by taking a Scruple of the Bark every Morning and Night for some Weeks. But this Remedy proves more effectual, when the Disease is accompanied with violent Efforts and Convulsions.

But, when any of the Remedies above directed do not agree with the Patient, as it frequently happens in thin and bilious Habits, recourse may be had to a Milk-diet ; by which some Women have been cured of long and obstinate hysteric Disorders, especially of the Hysteric Colic, which can only be relieved by repeated Opiates, the Pain returning as soon as the Effect of the Anodyne ceases. That Milk, which affords only a cold and crude Nourishment, should, nevertheless, by Use, strengthen the Spirits, does not seem repugnant to Reason, if we consider, that, as it affords only a simple Aliment, so it does not give Nature so much Trouble in digesting it, as Food and Liquors of a more heterogeneous Kind ; and that an equal Mixture of the Blood and Spirits necessarily follows this perfect Digestion. But some cannot support the Inconveniences which generally attend the Beginning of a Milk Diet ; because it is subject to coagulate in the Stomach, and does not afford sufficient Nourishment to maintain the ordinary Strength of the Body.

But the best Thing I have hitherto found, for cheering and strengthening, is a frequent and long-continued Practice of Riding on Horseback : For as this kind of Exercise gives a great Shock to the lower Belly, which is the Seat of the excretory Vessels, appointed, by Nature, to carry off all the excrementitious Parts of the Blood, it should seem, that every Disorder of the Functions, or natural Weakness of the Organs, must be relieved by the often repeated Agitation of the Body in the open Air : Neither can any Person have the innate Heat so extinguished, as not to be excited by this Exercise. Nor can there be any preternatural Substance, or vitiated Juice, so intimately lodged in any Cavity of these Parts, which cannot, by the Use of Riding, either be reduced to such a State as is agreeable to Nature, or dissipated and expelled : And, by this Motion, the Blood, being continually agitated and mixed, is purified and strengthened likewise : And though this Exercise does not agree so well with Women, who lead an easy and sedentary Life, and may be injured by Motion, especially in the Beginning, it is, nevertheless, very proper for Men, and soonest recovers their Health.

This is the general Method of curing this Disorder : But, when the Fit comes on, accompanied with any of the above-mentioned Symptoms, and is so violent as to admit of no Relief ;

for strengthening the Blood and Spirits, we must have Recourse to hysteric Medicines, which, by their strong ferid Smell, compel the disorder'd Spirits to return to their deserted Stations, being either taken inwardly, held to the Nose, or outwardly applied : Such are *Asa-fetida*, *Gambanum*, *Castor*, *Spirit of Sal Ammoniac* ; and whatever has a disagreeable Odour, whether it be naturally fetid, or is render'd so by Art, admirably answers this Intention.

When the Paroxysm is attended with a very violent Pain of any particular Part, excessive Vomiting, or a Looseness, besides the hysteric Remedies above-mention'd, we must exhibit Laudanum, which is the only Medicine that can quiet these Symptoms. But, unless the Pains occasion'd by Vomiting be, in a manner, intolerable, we must be cautious of mitigating them by any Opiate, before proper Evacuations have been made : First, Because, sometimes, there is so considerable a Plenitude of Blood and Juices in the Body, (especially in sanguine and robust Women) as to render the frequent Repetition of the most powerful Opiate ineffectual : In such, therefore, bleeding in the Arm is indispensably necessary, and a Purge must be administer'd ; and then the Opiate will answer the End, in a moderate Dose. Secondly, Much Experience hath taught me, that when the Patient has been, by degrees, accustomed to Laudanum, and proper Evacuations have not been previously made, she has been compell'd, when the Pain return'd, and the Virtue of the Opiate ceased, to repeat it every Day, for some Years, gradually augmenting the Dose ; so that, in time, the Patient cannot forsake it, although it impairs all the digestive Faculties, and weakens the natural Functions ; tho' I do not conceive, that the Use of Laudanum immediately injures the Brain, Nerves, or animal Faculties.

But I judge it necessary to evacuate, before the exhibiting of Opiates : For Instance, in every robust and plethoric Woman, Bleeding must precede, which must be succeeded by Purging : But, when weak slender Women have had a quick Return of a Fit, and Pain, of this Kind, it will suffice to cleanse their Stomachs with three or four Quarts of Posset-drink, and then to prescribe a large Dose of *Venice Treacle*, or *Orvietan*, and a few Spoonfuls of some grateful spirituous Liquor, with a few Drops of liquid Laudanum, to be taken immediately after it.

But, if the Vomiting has long continued, before the Physician was called, so that an Emetic may greatly disturb the Spirits, and too much debilitate the Patient, Laudanum must immediately be exhibited in such a Dose, and repeated so often as the Continuance and Urgency of the Symptom demand ; so that it may be able to conquer it.

Two Cautions are to be particularly observ'd here : First, When, after necessary Evacuations, the Use of Laudanum is begun, the Dose must be sufficiently large, and so frequently repeated, that all the Symptoms may be remov'd ; only allowing such an Interval, that the Effect of one Dose may be known, before another is exhibited. Secondly, When Laudanum has been administer'd, no Evacuation must be attempted ; for the gentlest Clyster of Milk and Sugar is sufficient to destroy all the good Effects of the Opiate.

But, tho' the Pains above-mention'd remarkably require Opiates, a violent Vomiting indicates much the largest Dose, and a frequent Repetition : For, in this Case, the peristaltic Motion of the Stomach being inverted, the Medicine is ejected, by Vomir, before it can produce any Effect, and must, therefore, be exhibited afresh, and, particularly, in a solid Form ; or, if in a Liquid, the Quantity of the Vehicle must be very small, that it may barely moisten the Stomach ; as a few Drops of Laudanum in a Spoonful of strong Cinnamon-water. The Patient, also, must be caution'd to compose herself immediately after taking the Laudanum, and to keep her Head steady, the least Motion of which extremely promotes Vomiting. When the Vomiting is, in a manner, overcome, it is proper to repeat the Anodyne, Morning and Night, for some Days, in order to prevent a Relapse ; and this should be observed in hysteric Pains, or a *Diarrhea*, which have been cured by an Opiate.

By this Method the symptomatic Pain and Vomiting may be easily cured, which, because they often resemble other Diseases, deceive the Physician more than any other Symptom that requires his Assistance : Thus, in that kind of hysteric Disorder which imitates a nephritic Paroxysm, the Pain attacks the same Part in both Diseases, and is, also, attended with a Vomiting ; but yet their Causes are so different, and require such different Treatment, that what relieves in the one, injures in the other : The same may be affirmed of that Species of hysteric Disorders which resembles the bilious Colic, the violent Pain, and the green Matter discharg'd upwards and downwards, being nearly the same in both Distempers. For these Reasons particular Caution must be observed, to guard against all Errors in the Diagnostics ; Errors which have often proved fatal to the Patient.

Another Mistake, which proves equally fatal to Numbers of Women, is, when, after a happy Delivery, they are persuaded to rise too soon from Bed ; which is immediately followed with an hysteric Disorder ; and, as it increases, the Lochia are first diminished, and then entirely suppressed : This unreasonable Stop-

page is succeeded by a numerous Train of Symptoms, which soon are destructive, unless great Skill and Diligence be used to prevent it: Sometimes a Delirium proceeds from the same Cause, which, augmenting continually, occasions Convulsions, and then Death; or, if the Patient escapes, she loses her Senses, for the Remainder of her Life. Sometimes a Suppression of the Lochia is followed with a Fever, which nearly, or, perhaps, entirely, resembles the then reigning epidemic Distemper; and the same hysteric Disorder, which first occasion'd the Suppression of the Lochia, now rages more violently than before.

In these Cases, the curative Indications are, First, To compose the Spirits disturbed by this Motion. Secondly, To remove the Suppression of the Lochia; this being the immediate Cause of these Symptoms: This Method, however, must not be obstinately pursued; for, if the ordinary Remedies fail, after being used some time, they are to be left off; because, as forcing Medicines are not to be administer'd here; so neither ought we to persist in exhibiting those of a milder Kind, on account of the extreme Weakness and Lowness of Spirits, which Child-bed Women, who are thus affected, labour under: For Instance, as soon as the Lochia are suppressed, it is proper to put the Woman to Bed, applying an hysteric Plaster to the Navel, and to prescribe the following Electuary, to be exhibited with all convenient Expedition:

Take of the Conserve of *Roman* Wormwood, and of Rue, each an Ounce; Troches of Myrrh, two Drams; Castor, Saffron, volatile Sal Ammoniac, and Asa-fetida, each half a Dram; Syrup of the Five opening Roots, a sufficient Quantity to make them into an Electuary; Of which let the Quantity of a large Nutmeg be taken every three Hours, drinking after it four Spoonfuls of the following Julap.

Take of the distilled Water of Rue, and compound Bryony-water, each three Ounces; fine Sugar enough to sweeten it; mix them for a Julap.

If these Medicines be given as soon as the Suppression of the *Lochia* appears, they generally effect a Cure; but if the Disorder continues, after the whole Quantity, here directed, is taken, we must exhibit, for once, a single Dose of Laudanum; which, tho' it be naturally astringent, yet, by allaying the Hurry of the Spirits, whereby the usual Flowing of the *Lochia* is check'd, it does great Service, and may sometimes remove the Suppression, when Emmenagogues fail. But Opiates are most commodiously exhibited along with Hysterics and Emmenagogues; as fourteen Drops of liquid Laudanum, in compound Bryony-water; or a Grain and half of solid Laudanum, and half a Scruple of Asa-fetida, made into two Pills.

But if the *Lochia* do not flow afresh by giving a single Dose of Opium, it is by no means to be repeated; because it would suppress them so powerfully, that they could not afterwards be promoted: If, therefore, after having waited some time, to be assured of its Effects, we find it fail, we must return to Emmenagogues, join'd with Hysterics, and then inject a Clyster of Milk and Sugar, a Repetition of which, if one does not bring down the *Lochia*, would tend to divert them another Way.

This Method having been used, it is safest, and incumbent on a prudent Physician, to wait and see what Effect Time will produce; for the Danger lessens every Day; and, if the Patient outlives the twentieth Day, she is in a manner safe: For, when the Woman has had a Respite, and recover'd some Degree of Strength, she will be able to support the properest Method of removing the Disorder; whereas, by continuing to give a Multitude of Remedies, when the first proves ineffectual, the Disease, and the Hurry of Spirits occasioning it, may be increased.

But, besides the natural Weakness of the Spirits, which is the primary Cause of Hysteric Disorders, there is, sometimes, an adventitious Weakness, occasion'd by an immoderate Flux of the *Menses*, either in Child-bed, or at other times, which is productive of that Sort of Hysterics called Vapours. The first Species principally happens soon after a difficult Labour, and is attended with a numerous Train of hysteric Symptoms; but it soon goes off, being easily remedied by an incrassating Diet, wherewith the following Drink may be joined.

Take of Plantain-water, and Red-wine, each a Pint; boil them together, to the third Part; and then sweeten the Decoction with a requisite Proportion of fine Sugar: Give half a Pint of it twice or thrice a Day.

In the mean time, some sufficiently weak hysteric Julap may be exhibited at times, and the following Composition held to the Nose.

Take of Galbanum, and Asa-fetida, each two Drams; Castor, a Dram and an half; volatile Salt of Amber, half a Dram: Mix them together. Or,

Take Spirit of Sal Ammoniac, two Drams: And let the Patient smell to it often.

But, as to an immoderate Flux of the *Menses*, in Women who are not pregnant, tho' it seizes them at any time, yet it most frequently comes a little before the *Menses* entirely cease, which happens about the Age of Forty, if they began early to flow; or about fifty, if they began late. In such Subjects, violent and frequent hysteric Fits are occasion'd, from the large Quantity of Blood which is continually lost. Tho' hysteric Medicines are to be used in this Case, both internally and externally, avoiding the stronger Kind, for fear of promoting the Flux; yet the principal Step towards the Cure consists in checking the menstrual Discharge; which may be soon effected, in the following manner.

Take eight Ounces of Blood from the Arm, and, the next Morning, give the common purging Potion; which must be repeated every third Day, for twice: And let her take an Ounce of Diacodium every Night, at Bed-time, during the Course of the Disease.

Take of the Conserve of dried Roses, two Ounces; Troches of *Lemnian* Earth, a Dram and half; Pomegranate-bark, and red Coral prepar'd, each two Scruples; Blood-stone, Dragons-blood, and *Armenian* Bole, each a Scruple; and as much simple Syrup of Coral as will make the Whole into an Electuary: Of which let the Quantity of a large Nutmeg be taken every Morning, and at Five in the Afternoon, with six Spoonfuls of the following Julap.

Take of the distill'd Waters of Oak-buds, and Plantain, each three Ounces; small Cinnamon-water, and Syrup of dried Roses, each an Ounce; Spirit of Vitriol, enough to give it an agreeable Sharpness.

Take of the Leaves of Plantain, and Nettles, each a sufficient Quantity; bruise them well together, in a Marble Mortar, and press out the Juice, and, lastly, clarify it. Let six Spoonfuls of it be taken three or four times a Day.

After the first Purge, let the following Plaster be applied to the Region of the Loins.

Take of Diapalma, and Rupture-plaster, each equal Parts: melt them down together, and spread the Mass on Leather.

A cooling and incrassating Diet must be prescribed; only it will be convenient to allow the Patient a small Draught of Claret, once or twice a Day; which, tho' it be not altogether so proper, as it is subject to raise an Ebullition, may be indulged, in order to repair the Strength.

There is, also, another Cause of hysteric Disorders, tho' it happens more rarely; and this is, a Bearing-down of the Womb, after a difficult Labour, attended with numerous hysteric Symptoms; which, however, may be easily cured, by the following Method.

Take of Oak-bark, two Ounces; boil it in two Quarts of Spring-water, to one; and, towards the End of the Boiling, add of Pomegranate-peel bruised, one Ounce; Red Rose-leaves, and Balauilines, each two Handfuls; and, lastly, half a Pint of Red-wine: Strain off the Liquor for a Fomentation, to be applied with Flannels, in the usual manner, every Morning, two Hours before the Patient rises; and at Night, after she is in Bed: Continuing the Use of it till the Disorder ceases. *Sydenham*.

With respect to hysteric Disorders, the Subject of this Article; *Hoffman*, we see, is of Opinion, that they are different from hypochondriacal Affections, contrary to the Sentiments of most medicinal Writers; And it must be confessed, that the Circumstance of Tumors being found in the *Ovaria*, and Region of the Uterus, upon the Dissection of hysterical Subjects, seems to favour his System. I should, however, suspect, that these Tumors, full of stagnating Juices, are rather the Effects than the Causes of Hysterics; for when the Vessels of the Uterus, and those adjacent to it, are extremely relax'd, the Fluids which ought to be propelled through them, or discharged from them, stagnate, and acquire a Degree of Acrimony, which, producing spasmodic Constrictions, increase their Propensity to retain the Fluids; which, in a healthy State, ought to be convey'd through them. It is farther worthy of Remark, that the *Uterus*, and female Organs destin'd to Generation, are extremely nervous and sensible Parts: Hence some Variety of Symptoms may arise; and supposing hysterical and hypochondriacal Affections to be excited by the same Cause, many spasmodic Disorders, hysteric Fits, and convulsive Strangulations, may be produced in one Sex, from which the other, destitute of such Parts, may, in a great measure, be exempted.

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Upon the Whole, I apprehend both hysterical and hypochondriacal Disorders to be produced by a Relaxation of the Abdominal Viscera; the Consequences of which are abundantly explained, under the Article FIBRA: For the whole World can furnish us with very few Instances of hypochondriacal or hysterical Persons, amongst those whose habitual Way of Living procures and preserves a due Tensity and Strength of the Fibres: Thus Women whose Subsistence depends upon their Labour, and Men inured to strong Exercises, especially in the Country Air, who go soon in the Evening to Bed, and rise with the Sun, or before it, who drink their Liquors cold, and those of no very spirituous Sort, may die of acute or chronical Distempers, but are utter Strangers to the very Names of Hysterics, Vapours, and hypochondriac Affections: Whereas those, whose Affluence of Fortune permits them to indulge in Ease and Indolence; who sleep much, and that long in the Morning; and, in consequence thereof, go to Bed unseasonably, and late; who drink copiously of warm Liquors, as Tea; all which debilitate and destroy the Tone of the animal Fibres, Vessels, and Viscera; most of these do a severe Penance for their Folly, and expiate their Disobedience to the Laws evidently pointed out by Nature and Providence, as Sydenham expresses it, by a Purgatory of hysterical or hypochondriacal Tortures.

The rational Method of Cure, therefore, consists, first, in clearing the Stomach and Intestines of all the indigested and putrid Sordes retain'd therein, and exciting no very delirable Symptoms: The second Step to be taken is, to attenuate and carry off the Juices stagnating in the Vessels and Viscera; and, for both these Purposes, nothing is more effectual than Mercurials prudently exhibited. When these are accomplish'd, the rest of the Cure will be readily completed, by going to Bed soon, and rising early; by proportioning the Aliments to the Powers of Digestion; by Exercises duly begun, and cautiously increas'd; and by Medicines, which by their gentle and salutary Stypticity, strengthen the digestive Organs, brace up the Fibres, and contribute to procure a due Tone in all the vascular System. Such particular Directions, with respect to these, are already given under the Article FIBRA, that it would be superfluous to repeat any Part of them in this Place. I shall only add, that, so far as I can judge, the Method here recommended is so obvious and successful, that I am persuaded, very few can miss of a Cure, unless their own Obstinacy or Appetites, interfere.

HYSTEROCELE, ὑστεροκήλη, from ὑστέρα, the Uterus, and

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κέλη, a Rupture. An Hernia caus'd by the Uterus falling through the Peritonæum. *Blancard.*

HYSTERON, ὑστερον, the same as DEUTERION, the Secundines. It is also used in the Plural, *Hystera, ὑστερα, Galen in 5 Aph. 35.*

HYSTEROTOMIA, ὑστεροτομία, from ὑστέρα, the Uterus, and τόμος, a Section, a Section of the Uterus, is the same as CÆSAREA SECTIO; which see.

HYSTEROTOMOTOCIA, ὑστεροτομοτοκία, from ὑστέρα, the Uterus, τόμος, a Section, and τόκος, Birth. A Cæsarean Birth, produced by a Cæsarean Section.

HYSTRIX. Offic. Charlt. Exer. 19. Aldrov. de Quad. Digit. 471. Gesn. de Quad. 563. Jonst. de Quad. 119. Raii Synop. A. 206. *Balatnametinic, Indis.* THE PORCUPINE.

It is found in the Province of *Caragu*, and is of the Size of a Pig eight Months old. What is used in Medicine, is the whole Animal, and the Stone, called *Pedro del Porco*, found in the Gall-bladder, called, also, by the various Names of *Bezoar Hystricum, Lapis Hystricis, Lapis Malacensis, Lapis Portinus, Mont. Exot. 5.* and *Lapis seu Pila Hystricis, Ind. Med. 65.* This Part is rather to be called an *Ægagropila*, than a Stone, as consisting of a woolly kind of Fibres, and a redish, bitterish, and friable Matter, with its Outside cover'd in some Parts with a kind of blackish Scales, like Nails. It has neither Laminæ, nor Membranes, and is neither ponderous nor smooth, like the Bezoar, but light, and somewhat like the *Ægagropila.* *Jonst.*

This Animal seems to be endu'd with the same Virtues, as the *Erinaceus.* Dr. *Tancred Robinson* observes, that it is esteem'd an excellent Alexipharmac. *Dale.*

HYVOURAHE, Theveto, Clus. in Monard. *Hyvourai Brasilianis, Guaiaci Species.* *Lerio.*

A large Tree growing in *Brasil*, whose Bark is of a silver Colour on the Outside, and redish within; and, when newly stript, yields a milky Juice of a salt Taste, and very much like that of Liquorice. The Fruit is of the Size of a moderate Plum, of a gold Colour, tender, of an agreeable Smell, and a very sweet Taste, and inclosing a small Stone. This Fruit is very acceptable to sick Persons, on account of its fine Taste.

The Bark of this Tree is sudorific, drying, and aperitive, and used in *Brasil* for the *Lues Venerea*, in the same manner as we use the Bark and Wood of the *Guaiacum* for the same Disease in *Europe.* The Name *Hyvourabe*, in the *Brasilian* Language, signifies a rare Thing. *Lemery des Drogues.*

I.

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FOR the Signification of this Letter in the Chymical Alphabet, see ALPHABETUM.

JAAROA, a Species of *Phaseolus*, growing in *Brasil*, and bearing a Fruit like that of the *Cuite*, or *Higueri Oviedo*, but generally less, of the same Pulp and Seeds, and of the same Use. It grows every-where, but principally in Gardens, where it is cultivated. The Roots are served at Table at a second Course. *Raii Hist. Plant.*

JABATAPITA, Marcg. Pison. *Arbor baccifera racemosa Brasilensis, Bacca trigona prolifera.* A Tree in *Brasil*, of a moderate Height; its Flowers grow in Tufts, are pentapetalous, yellow, and of a very sweet Smell. The Fruit, which is ripe in *March*, grows in Bunches, that is, on every Pedicle grows a Berry of the Size of a Cherry-stone, of a conical, or somewhat triangular Figure, with three or four other Berries seated on it of an oval Figure, and of the same Size with that under them, all of a black Colour like our Myrtle-berries, and giving a Colour like them; they are without Stones, are of an astringent Taste, and serve not only for the same Uses, as our Myrtle-berries, but yield an Oil in common Use for Salads. *Raii Hist. Plant.*

JABORANDI, Marggr. A Plant of the Height of two Feet, of a ligneous and round Stalk, nodous, writhed, and unequal; the Root is not thick, but divided into many lesser ones, and Filaments; the Flowers are white and tetrapetalous, and the Seeds cover'd with a double Husk, as in Hemp, are of a brown Colour, flat, and resembling the Figure of an Heart, with a Part cut off from one Side. The Place of Growth of this Plant is not assigned, but the Root is said to be an Alexipharmac.

JABUTICABA, Pison, Marcgr. is a fine, tall, strait, pomiferous Tree in *Brasil*, with very large Branches, and bearing a Fruit of an Ash-colour, of the Bigness of a Lemon, of a sweet Juice,

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and cover'd with a thin Pellicle, like a full-ripe Grape, of a temperate and salutary Quality, and very grateful to feverish Persons. It bears no Flowers, but produces its Fruit from a tuberous Substance, with which it is invested from the Bottom of the Root, to the Tops of the Branches, in so plentiful a manner, that the Tree seems to be one continued Cluster.

There is another Species of this Tree, which grows in the Woods of *Tabacurana*, but the Fruit is not to be compar'd with the other: The Inhabitants, however, express from it a delicious and sweet Wine, which must be drank presently, for it grows the worse for keeping, and degenerates into Vinegar. Both the Species grow only in vast Forests.

JACA Indica. J. B. *Jaaca vel Jaca.* Park. *Tijaka marum.* H. M. *Palma Fructu aculeato ex Arboris Trunco prodeunte.* C. B. THE JACK-TREE.

It is a very large, tall Tree; the Fruit, called *Jaca*, grows out of the Trunk, and the biggest Branches, and is often bury'd in the Earth with the Bottom of the Trunk, to which it adheres. It is of a round-oblong, or rather conical Figure, a Span in Breadth, and two Spans in Length, and frequently weighs above twenty-five Pounds; the Rind of it is green, thick, and cover'd with a Multitude of prickly scaly Tubercles, like Diamonds, but white and lacteous within. *Acosta* says, the Prickles are not at all sharp and pungent, tho' they look threatening. Within these larger Fruits are innumerable smaller ones, under one common Rind, of an oblong Figure, a thick yellowish Pulp, and of a sweet and very grateful Taste and Smell; every one of these contains, in the Middle of it, a Nut, which is lodged within the Pulp, as in a Bag. These Nuts are of an oblong Figure, and cover'd with a thin, cartilaginous, whitish, and transparent Rind, under which is another redish one, containing a thick Kernel of the

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the same Taste with our Chestnuts. Moreover, in the Middle of this large Cone arises a thick, whitish, and lacteous Style, like a Pillar, on which, as on a common Base, the lesser Fruits are placed in circular Order, having one Extremity inserted therein, and by the other adhering, in diametrical Opposition to the Rind. Among them are observ'd Multitudes of whitish and yellowish coriaceous Ligaments, which are, also, affix'd to the Style, and the Rind; and, when the Fruit is cut up, discharge together with the Style, and the Rind, a glutinous milky Juice, by which Birds are taken.

The Tree grows in *Malabar*, and over all the *East Indies*; there are above thirty Species of it, which are distinguish'd by their Fruits, tho' they are all reduced to two Kinds, one of which bears a Fruit of a succulent Pulp, which is of a very grateful and honey-like Taste; and the other produces Fruit of a loose, soft, and less savoury Pulp: The former is called *Varata*, by *Acosta Barca*; and the other *Tijaka Papa*, by *Acosta, Papa*; or *Girafal*.

The ripe Fruits, deprived of their Rinds, are eaten at Entertainments; but, when us'd too freely, are difficult of Digestion. The Natives use the tender Fruits in their *Caril*, a sort of Food so called, or preserve them in Pickle, or cut them in Pieces, and boil them, or fry them in Oil of Palm. The Nuts roasted, after the manner of common Chestnuts, are of a sweet Taste, and are served up among Sweetmeats in a second Course at Entertainments; but, eaten too freely, they affect the Breast and Fauces with a burning Heat, succeeded by a Hoarseness. The Natives use these, also, in their *Caril*, or dry them in the Sun, and make Cakes of the Flour, which they call *Apas*; and the thin inner Rind, which immediately incloses the Pulp, serves instead of *Arequa*, or *Kanoga*, in chewing of Betel. Of the Ashes of the tender Fruit, is prepared a Lye with which they wash their Linen; and the Wood employs the Carpenter and Joiner. *Acosta* writes, that the yellowish viscous Pulp, which involves the Nuts, is of a grateful Taste, and much like the Pulp of the finest Melon, but difficult of Concoction, and very burdensome to the Stomach; and that, if undigested, it generates noxious and virulent Humours; and that they who frequently indulge themselves in this Food, easily fall into that most pernicious and infectious Disease, called *Morxi*.

Of the Roots of the Tree, they prepare a Decoction, which stops a Diarrhoea; and of the Powder of the Leaves, mix'd with the Dung of the *Bubalus*, is prepared a Cataplasm, which, apply'd hot to the Cheeks, cures the Spasmus Cynicus. The milky Juice of the Fruits, pounded with the Powder of *Calamus Aromaticus*, and the Eyes anointed therewith, is good for the *Nyctalopia*. The Wood, bruised in Vinegar, is effectual in a Relaxation of the Uvula, and an Inflammation of the Fauces and Tonsils. The Root bruised with the Pulp of the Fruit, and with an Addition of Sugar reduced to a Plaister, and apply'd to the Part, cures a malignant Herpes, attended with Worms, destroying those Vermin. *Raii Hist. Plant.*

JACAPE. A Species of thick Rush-like Grass, growing in *Brasil*, bearing neither Flower nor Seed. It is said to be effectual against the Bites of Serpents, if it be ty'd about the Limb above the Wound. *Piso*, from his own Experience, commends the Decoction of the Roots against Poisons. *Raii Hist. Plant.*

JACAPUCAYA *Arbor* Marcgr. *Jacapucao* Pison. *Nucifera Brasiliensis*, *Cortice Fructus ligneo, quatuor Nuces continente*. It is a very tall Tree growing in *Brasil*, and bearing a Fruit which hangs by a thick ligneous Pedicle, as big as a Child's Head, of an elliptical Figure, and its lower Part fastigiata in manner of an obtuse Cone, and its upper next the Pedicle depressed, resembling a Cup with a Cover; its Rind is ligneous and hard. The Fruit, when ripe, opens, and the Cover falls off, discovering a Fruit divided into four Cells, each containing a wrinkled Nut, of the Size of an ordinary Plum, and of a yellow, inclining to an Ash-colour, which, broken, discovers a white Kernel, of an excellent Taste: The Nuts, when mature, which is only in the Middle of Winter, are, also, divested of their Coats, and fall out of their Calyces. The Tree abounds in the Marshes and midland Places, to such a Degree, as to be sufficient to support an Army with its Fruit, which, for its Taste and Goodness, may compare with the Pistachio, and is said to be provocative of Venereal Inclinations.

Potions, Panadas, and such Kinds of Preparations, are made of the Fruit, as well for Medicinal Uses, as for Food; a pinguous Oil is, also, expressed from it, which is hotter than that of Almonds. It is better to eat the Fruit roasted than raw, because it affects the Head; the Boxes, or Cells, are so hard as to serve not only for Drinking-vessels, but for Dishes and Pots.

There are two Species of this Tree, which are alike in Appearance, but differ in Qualities; for one produces more deformed Calyces, whose Nuts are of less Value, and the immoderate Use of them, as we are assured by the Inhabitants, produces an *Alopecia*. The Wood of both Species wonderfully resists Putrefaction, and, for its exceeding Hardness, is chosen for making the Axes of their Sugar-mills, being vastly preferable to other Trees, for that Purpose: Of the outer Bark, dry'd and bruised, they make Oakum for calking of Ships.

JACARANDA *Brasiliensis* Marcgr. *Jacaranda alba* Pisonis, *Fructu Manus Magnitudine & Crassitie*. It is a Tree like the

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European Plum-tree, and grows in the open midland Places of *Brasil*: Its Fruit is of the Bigness and Thickness of the Palm of the Hand, very remarkable for its gibbous, sinuous, and writhed Figure, and always pendulous, by reason of its Ponderosity; it is not eatable, unless boiled. The Inhabitants prepare of it a sort of Pottage, or Gruel, called *Manipey*, which is very good for the Stomach.

There is another Species of this Tree, whose Wood is black, sweet-scented, and hard: It grows very commonly in the Bay of *All-Saints* in *Brasil*. *Raii Hist. Plant.*

JACE *Brasiliensis* Marcgr. *Citrullo affinis, Melo Indicus, five Patheca*. J. B. *Melo Indicus Fructu oblongo*. C. B. Ray makes this a Species of *Anguria*, or *Citrullus*, and calls it the *Watermelon*. The Fruit is round, globous, or oval, of the Bigness of a Man's Head, more or less, cover'd with a green Rind, with a white Pulp, and in the Middle, where the Seed lie, red or Blood-coloured, extremely juicy, and of a good Taste. The Seeds are numerous, and the Size and Figure of those of the *Pepo*, or *Pom-pion*, of a black, and, in some, of a redish Colour. *Raii Hist. Plant.* See the Virtues under CITRULLUS.

JACEA.

The Characters are;

The Leaves and Stalks are destitute of Spines, and the Leaves have their Margins equal, not serrated. *Boerhaave, Index alter, Pars 1. p. 140.*

Boerhaave mentions forty-one Species of this Plant, none of which have any medicinal Virtues attributed to them, except the 1st, 2d, 22d and 31st.

The first is the

Jacea; stellata; folio papaveris erratici. See CALCITRAPA.

The second is the

Jacea; stellata; spina solstitialis dicta; folis Cyani. See CALCITRAPA.

The twenty-second is thus distinguish'd:

Jacea; nigra; pratensis; latifolia. C. B. P. 271. *Tourn. Inst.* 443. *Boerb. Ind. A.* 142. *Jacea*. Offic. *Jacea nigra*. Ger. 588. Emac. 727. *Raii Hist.* 1. 325. Synop. 89. *Jacea nigra vulgaris*. Park. 468. *Jacea nigra vulgaris capitata & squamosa*. J. B. 3. 27. Knapweed, or MATFELLON.

Tabernamontanus recommends the Decoction of it for Rup-tures: There are some that give it in Powder in Pottage. By the chymical Analysis it yields hardly any thing but a Substance loaded with acrid Salt. *Martyn's Tournefort.*

It is too frequent in Pasture-grounds, and flowers in *July* and *August*. The Herb, which is used, is effectual against Tumors of the Tonsils; and in Hernias and Wounds. *Dale* from *Schroder*.

The thirty-first is thus distinguish'd:

Jacea; foliis Cichoraceis, villosis; altissima; flore purpureo: *Tourn.* 444. *Boerb. Ind. A.* 142. *Stabe*. Offic. *Stabe argentea major*. Ger. 590. Emac. 730. *Stabe major foliis Cichoraceis, mollibus, lanuginosis*. C. B. 273. *Stabe Salmantica prima Clusii*. Park. 476. *Raii Hist.* 1. 324. *Stabe Salmanticensis prior Clusii, five Jacea Intybaced*. J. B. 3. 36. SILVER KNAPWEED.

It is cultivated among us in Gardens, flowers in *July*, and the medicinal Parts are the Herb and Seeds. The Leaves and Seeds are astringent; for which Reason a Decoction of them is used in Clysters for the Dysentery, and, also, instilled into purulent Ears. A Litus, prepared of the Leaves, removes a Lividness occasion'd by Blows about the Eyes, and represses an Hæmorrhage. *Dale* from *Dioscorides*.

So short and imperfect is the Description which *Dioscorides* has given us of the *Stabe*, as to occasion a great Variety of Opinions among Botanists; some bestowing that Name upon one Plant, some on another. The Plant, whose Synonyma I have here given, has as good, and, perhaps, a better Right to that Name, since it grows more plentifully in hot Countries, than either the *Jacea magna*, of which *Matthioli* has given us the Figure, or that which *Dodonæus* took from the Imperial Library; but whether it agrees in Virtue with that of *Dioscorides*, must be tried by Experiments. *Dale*.

JACEA is also a Name for several Sorts of XERANTHEMUM and SERRATULA.

JACENS, *κατακείμενος*, from *καίμαι*, to lie, *Jacent*, or *Lying*, is spoken of a Person in the Situation or Posture of *Lying*; attended with a Cessation of the Actions proper to the Muscles and Tendons. *Galeni de Muscul.* The Ears are called *jacentes*, lying, which were never erected, as in a newly-fallen Hind. *Scribon. Largus*, No. 13. Nature is said by *Helmont* to be *jacens*, *ja-cent*, when the Disease is risen to an Head, and intimately connected with Nature; that is, when the morbid Cause strives to suppress the vital Forces or Flame. *Helmont, Natura contr. nefcia.*

IACINTHUS, or **HYACINTHUS**. See HYACINTHUS.

JACOBÆA.

The Characters are;

The Leaves are pretty deeply jagged, and the Calyx the same as of the *Doria*. *Boerhaave, Index alter, Pars 1. p. 99.*

Boerhaave mentions eighteen Species of this Plant, none of which have any medicinal Virtues ascribed to them, except the seventh and tenth.

The seventh is thus distinguish'd:

Jacobæa; maritima. C. B. P. 131. *Jacobæa marina, five Cineraria.*

Cineraria. J. B. 2. 1058. *Cineraria*. Dod. p. 642. *Achaovan*. *Abiat*. Alp. *Ægypt*. 37. *Jacobaea fruticosior, foliis utrinque can-*
dicantibus. M. H. 3. 109. See ACHAOVAN.

The *Egyptians* use it medicinally for many Purposes: The Decoction of the Leaves, they say, expels the Stone from the Bladder and Kidneys; and is good to open inveterate Obstructions of the Viscera, especially of the Uterus. It is, also, accounted a Remedy for other uterine Disorders; as Coldness, Strangulation, Sterility, and Inflammations, and for a Suppression of the Menes; whence these Women, who are subject to Hysterics, find great Relief by Inseffions over a warm Decoction of the Leaves and Flowers. *Prosper Alpinus de Plant. Ægypt*.

The tenth is thus distinguish'd:

Jacobaea; vulgaris; laciniata. C. B. P. 131. *Tourn. Inst.* 485. *Boerb. Ind. A.* 99. *Jacobaea*. *Offic. Ger.* 218. *Emac.* 280. *Jacobaea vulgaris*. J. B. 2. 1057. *Raii Hist.* 1. 284. *Synop.* 82. *Jacobaea vulgaris major*. Park. 668. RAGWORT or SEG-GRUM.

The lower Leaves of Ragwort are of a dark-green Colour, about half a Foot long, and about two Inches broad, blunt-pointed, and deeply cut into several smaller jagged Divisions, those next the Root smallest. The Stalks are about two or three Feet high, hollow, and striated, having several paler green Leaves set on, without Foot-stalks, which are in Proportion broader, and more finely cut. The Flowers grow on the Tops of the Branches Umbel-fashion, and are each made up of about a dozen yellow Petals, set about a yellow fistular Thrum, which passes away into Down, containing small statish Ash-coloured Seed. The Root is spreading, and full of long whitish Fibres. It grows every-where in dry fields and Banks, and flowers in June and July.

The Leaves of Ragwort are commended by some as good for the Sciatica, or Hip-gout, used in Cataplasms, Fomentations, and Ointments; as also for cleansing foul sordid Ulcers and Sores; and are good for the Cure of Wounds; but it is seldom used. *Miller's Bot. Off.*

Its Leaves are bitter, aromatic, a little astringent, and give but a very faint Tincture of red to blue Paper: They contain a great deal of Oil, and terrestrial Parts; their Salt very much resembles that which is natural in the Earth. *Dodonæus* says, that Ragwort is vulnerary, detergent, and good for the Diseases of the Throat. An Ointment made at *Paris*, with its Juice, is commended for the St. Antony's Fire, but it would be better to bathe the Face with the Juice itself warmed. *Martyn's Tournefort*.

It has the same Virtues as *Senecio*, or Groundsel: Applied hot, in the Form of a Cataplasm, to the Belly, it has been successful, as *C. Hoffman* observes, in giving Relief under intolerable Pains of the Belly, proceeding from the Dysentery. It is, also, good in a Gargarism for the Quinsy, and Inflammations of the Tonsils, which it dissolves, and perfectly cures. *Dale from Schroder*.

JACOBÆA is, also, a Name for several Sorts of *DORIA* and *SENECIO*; which see.

JACUA ACAUGA. A Name for the *Heliotropium*; *Americanum*; *caruleum*; *foliis Hormini angustioribus*.

JACULUS, The Name of a poisonous Serpent, the same as *ACONTIAS*, and *CENCHRITES*; which see.

JADE. The Name of a precious Stone, otherwise call'd *Lapis Divinus*.

This is a Stone of a greenish Colour, somewhat inclining to grey; so extremely hard and difficult to be cut, that the Powder of Diamond must be employed for this Purpose. It is very much esteemed by the Inhabitants of the *East Indies*, and no less valuable in the Eyes of the Natives of *South America*, but for very different Reasons; the former accounting it a precious Stone, more valuable than the Diamond; and the latter a medicinal Stone, of uncommon Efficacy against the Epilepsy and Gravel.

It is by some said, that, when worn on the Region of the Kidneys, it is proper to expel the Stone and Sand by Urine; and that it, also, contributes to the Cure of an Epilepsy; but the pretended Virtues of this Amulet are unworthy of that Regard which is always due to Truth.

JAGRA. A particular Species of Sugar, prepared from the *Coco* or *Cocker-nut*.

JALAPA.

The Characters are;

The Root is thick, carnosus, long, succulent, and perennial; the Leaves are conjugated, like those of the *Solanum*; the Branches and Stalks are geniculated; the Calyx resembles a Tube, is monophyllous, and quinquefid; within the Calyx, upon the Ovary, grows a monopetalous, Funnel-shap'd, and, in some measure, quinquefid Flower. The Ovary lies conceal'd in the Centre of the Calyx, furnish'd with a long Tube, with an orbicular Apex. This becomes an oblong, pentagonal, umbilicated Fruit, containing a farinaceous Kernel.

Boerhaave mentions six Species of this Plant; which are,

1. *Jalapa*; flore flavo. T. 129. *Mirabilis Peruviana, flavo flore*. H. L. Clus. H. 90. *Solanum Mexicocanum, flore magno flavo*. C. B. P. 168.

2. *Jalapa*; flore purpureo. *Tourn. Inst.* 129. *Boerb. Ind. A.* 78. *Chom.* 58. *Mirabilia Peruviana*. *Ger.* 272. *Emac.* 343.

Park. Parad. 364. *Raii Hist.* 1. 398. *Solanum Mexicocanum flore magno*. C. B. P. 168. *Jasminum Mexicanum sive Flos Mexicanus multis*. J. B. 2. 814. MARVEL OF PEKU.

This Plant is cultivated in Gardens, and flowers in the Month of *August*. Its Leaves and Root are used in Medicine; the former of these, when bruised, dissipate cold Tumors, if applied to them; and the Water, in which an Ounce or two of the recent Roots have been boiled, is an excellent Purgative for dropical Patients. *Boerb. Hist. Plant. Hortusius, ad Clusium Hist. Plant.* informs us, that two Grains of the Root, taken internally, are highly efficacious in evacuating Waters in a Dropsy. *Dale Pharmacologia*.

3. *Jalapa*; flore ex luteo, albo, & rubro, misto. T. 129.

4. *Jalapa*; parvo flore. T. 130. *Solanum Mexicocanum flore parvo*. C. B. P. 168. *Solanum Mexicanum, Jasminum Indicum dictum, flore minore*. C. B. Prodr. 91.

5. *Jalapa*; Officinarum fructu rugoso. T. 130.

It was a Root unknown to the Antients, and, also, in *Europe*, till the Discovery of *America*. It usually comes from the *Spanish West Indies* in transverse Sluices, about half an Inch thick, being rugged, and of a dark-brown Colour on the Outside, and whitish within, full of black, shining Resin. The whole Root is oblong or oval, the lower End being narrowest; of a pretty firm heavy Substance. This has been believed by most Authors to be the Root of a *Convolvulus*; Mr. Ray calling it *Convolvulus Americanus, Jalapium dictus*; but, if we may rely on the Account which Father *Plumier* gives of it, it is a Species of *Mirabilis Peruviana*, or Marvel of Peru, having smaller Leaves and Flowers than the common; and is called, by *Tournefort*, *Jalapa Officinarum, fructu rugoso*: Which may well enough be; for *Prevotius*, in his *Medicina pauperum*, says, that two Drams of the Root of the *Herba mirabilis Hispanorum, variegatum Florem gerentis*, which I take to be the common Marvel of Peru, purges serous Humours very kindly, and is, therefore, of singular Service in the Dropsy, Gout, and Rheumatic Pains: It is likewise a good Purge for the Itch, and all cutaneous Distempers, from half a Dram to a Dram. It is used with great Success in Obstructions of the Viscera of the Abdomen; being given in a Bolus, in the Quantity of twelve or fifteen Grains, with *Mercurius dulcis*. It may, likewise, be joined with the *Peruvian Bark*, twenty-four Grains to an Ounce of Bark, and made into a soft Electuary, with three Ounces of Syrup. A Dram of this Electuary will purge very well; and hence we see, that the Bark assists Jalap in its Action; for, in a Dose of this Purge, there are about three or four Grains of the Root. It may be advantageously given in this Manner, in habitual intermitting Fevers, accompanied with a bad Habit of Body.

The only officinal Preparation from this Root is, the Resin extracted by Spirit of Wine. The Resin ought to be given in very small Doses, that is, from five to twelve Grains at most; and it ought to be remembered, that, if this Resin is not either very well dissolved or mixed, it sticks to the Folds of the Intestines, and raises great Heats, and other Disorders. Therefore it is always better given in Substance. This Resin loses its Virtue by being long kept. If given in the Quantity of fifteen or twenty Grains, it purges very briskly; and *Simon Paulli* compares it, on that account, to *Scammony*. *Wesfer*, in his Treatise *De Cicuta Aquatica*, mentions some Experiments made with *Jalap-roots*, on Dogs; the Event of which was, that the Dogs died, and their Incertines were found to be perforated.

That which breaks blackest and most brittle, sound, and shining within-side, is best, the Parts which give it those Properties, being supposed to contain its medicinal Virtues. Some take great Pains to extract its Resin, which is to be done with any spirituous Menstruum, but afterwards it requires Correctors. The most common is Salt of Tartar, or Loaf-sugar; for its being rubbed much with the latter, makes it operate milder, for the same Reason as the Salt of Tartar does. But if correcting it consists in separating its Parts, what Occasion was there for drawing them from the Root, and joining them in the Form of a Resin? The following Experiments made by M. *Boulduc* are taken from the Memoirs of the Royal Academy of Sciences, for 1701.

He says it is one of the best Cathartics we have, and wonders it is so little used; for as it is so gentle as to need no Corrector, it, on the other hand, wants nothing to promote its Operation; Qualities which can scarcely be ascribed to any other Purgative. Yet, he observes, that there are many Methods given to correct it, which rather spoil than meliorate it. Some have observed, that it binds the Body too much after the Operation; but this Effect is common to other Purgatives, especially *Hydragogues*. His Experiments of Extraction were made with Spirit of Wine, and common Water. Twelve Ounces of the Root yielded, with Spirit of Wine, two Ounces of a resinous Extract well dried: The Remainder, being likewise well dried, weighed nine Ounces, and six Drams. Out of this Remainder, by Water, he got four Ounces of a very solid and pure Extract. He took twelve Ounces more of the same Root, and digested it in common Water, with a gentle Fire; then, by Evaporation, he got a good Extract, weighing six Ounces and an half, the thick and muc-

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mucilaginous Parts, which he separated by Filtration, being well dried, weighed one Ounce and an half, and the Residue weigh'd about four Ounces and an half.

Hence he observ'd, that the Extract made with Water, if given from twenty-four Grains, to thirty-six, purged gently; but was very diuretic, as he had experienced in many hydropical Cases: That the Residue, which yet contained a little of what was resinous, purged reasonably, but with Gripings; that the Remainder, deprived of its saline and resinous Parts, purged very little, but was extremely diuretic. Whence he concludes, that Extracts, to purge effectually, and without Irritation, ought to contain both the saline and resinous Parts; for the former only pass by Urine, and the other always, if taken alone, occasions Disorders; but, both joined together, their Effects are laudable; for the saline, opening the resinous Parts, and dissolving and accelerating their Distribution, thereby hinder them from adhering to, and inflaming the Parts they pass thro'.

According to his Opinion and Experience, both concerning this, and other Drugs of the like Nature, the more Pains is taken in their Preparation, the worse they are; because Nature seems to have furnished them with the best Correctors in their Production. The Jalap-root itself, therefore, simply powder'd, is the best way of taking it, which may be mixed into a Draught, or a Bolus. It may be given to Adults, from half a Dram to one Dram; and to Children some give so many Grains as they are Years old; but that is somewhat in too small a Quantity, especially when they are advanced above ten Years. The only Reason that can be assigned for using the Resin, is, that of the Root itself, one Parcel abounds with more, another with less, of the purgative Parts, which reside in the Resin: Hence the Dose of the Root will become uncertain; but those of the Resin, being thought to be all of the same Efficacy, may have its Dose determined very exactly; and its griping Quality may be certainly corrected by fixed Salts, or Loaf-sugar.

RESINA JALAPII. RESIN of JALAP.

Take of select (that is, black, heavy, and sound) Jalap powder'd, one Pound; put to it of rectified Spirit of Wine, three Pounds; invert a Bolt-head, and lute it; set it upon warm Sand, three or four Days, and shake it, every Day, two or three times; when the Spirit is well tinged, decant it carefully, through a Hair Sieve, into a Cucurbit; set it in a gentle Heat of Sand, and draw off the Spirit of Wine, to one Pint, which may be returned upon the Jalap, to make a second Extraction: Decant the Spirit as formerly; lute on its Head and Receiver, and distil as before: Let all cool, and in the Cucurbit there will be a Resin, in the Form of Turpentine; which wash in three or four Waters, and, in a gentle Heat, dry it, till it will beat into Powder.

Many fraudulent Chymists, when Jalap is dear, have a Trick of putting Scammony, which is, of itself, almost all Resin, amongst it, and sometimes Gamboge; by which means they can afford to sell it cheaper, than the Price it can be honestly made for. But their most notorious Cheat is, in mixing with it common black Resin; two Parts of the latter to one of the former, as I have been informed: But this may be known by putting it into rectified Spirit, which will again dissolve the Resin of Jalap, but not touch the other. The Virtues are the same with those of the Root, but it works rougher, because all such Substances stick to the Coats of the Stomach and Intestines, so as to occasion much Pain and Uneasiness; for which Reason this is corrected with Sugar, Cream of Tartar, or the like; by which means it is brought into the same State as Nature first presented it to us in the Root. For some Purposes, indeed, where the Form is required to be small, as often in Administration to Children, this is most convenient. Its Dose is from three Grains to one Scruple. *Quinsy.*

Miller, in his *Gardeners Dictionary*, says, these Plants are all affirmed, by P. Plumier, to be different Sorts of Jalap: But the *Jalapa Officinaria*, *fructu rugoso*, he says, is the particular Plant, whose Root is commonly used in Medicine; but that he has been since informed, by Mr. William Houston, that the Jalap is the Root of a *Convolvulus*, and is not akin to either of these Plants.

JAMACARU. The Name of several Species of *American* Fig-trees. Ray takes notice of six. All these are esteem'd cooling and moistening, except the Grains, which are drying and astringent. The Gum, therefore, the Fruit, the Leaves, and the Roots, either exhibited internally, or externally apply'd, are esteem'd good in Fevers.

JAMBLICHI SALES. A sort of compound Salt was thus called, which is said to have been invented by *Iamblichus*, and was in great Esteem for concocting the crude Humours, and for gently promoting Stools. It was thus prepar'd:

Take of Sal Ammoniac, one Pound; of Cappadocian Salt, six Ounces; of Pepper, three Ounces; of Ginger, three Ounces; of the Seeds of *Cnicus*, eighteen Scruples; of the

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Seeds of Rocket, sixteen Scruples; of Bishop's-weed, eighteen Scruples; of Hyssop, eighteen Scruples; of Silphium, one Scruple; of the Tops of Thyme, Phyllon, and the Seeds of Smallage, and Parsley, each eighteen Scruples; of Origanum, an Ounce. Let them be all powder'd together, and sifted. The Dose is half a *Cochleare*, in a poach'd Egg, or any convenient Liquor, to be taken fasting. *Gorræus.*

JAMBOLONES *Garcia*. *Jambolains* *Acostæ*. A Shrub, which grows in the *East-Indies*, somewhat like Myrtle. It bears a Fruit somewhat resembling large Olives, of a very astringent Taste, which is pickled like Olives. The Fruit is eaten with Rice, and is said to excite an Appetite, but is not esteem'd very wholesome. *Raii Hist. Plant.*

JAMBOS. A Tree, growing in *Malabar*, of which Ray enumerates six Species.

1. *Prunus Malabarica* *Fructu umbilicato Pyriformi*, *jambos dicta minor*. *Jambos*, Park. J. B. Pison. *Malacca*. *Schambu*. H. M. *Persici Officulo* *Fructus Malacensis*. C. B. The *Malabar* Plum-tree, with an umbilicated Pear-shaped Fruit, called the *Jambos minor*.

The Fruit is usually eaten in the Beginning of Meals, before other Meats; it is of a sweet and grateful Taste, and of a very pleasant Rose-like Smell, which it emits even in eating; its Pulp is cold and moist, and extremely tender. Both the Fruits and Flowers are preserv'd in Pickle, and by their cooling Succulency extinguish Thirst in Fevers, and comfort the vital Spirits.

2. *Jambos prior* *Acostæ*. *Nati-Schambu*, H. M. *Prunus Malabarica* *Fructu umbilicato Pyriformi*, *Jambos dicta major*. The *Malabar* Plum-tree, with an umbilicated Pear-shap'd Fruit, called the *Jambos major*.

This Tree bears Fruit twice in the Year, which is of a more delicate Taste than that of the preceding. The Bark of the Tree bruised, and taken in sour Milk, cures the Dysentery.

3. *Blatti*, seu *Jambos Sylvestris*, H. M. The *Blatti*, or wild *Jambos* of the *Hortus Malabaricus*.

The Natives boil the Fruit of this Tree, and eat it with other Food. The expressed Juice, mixed with Honey, cures *Aphthæ*, and is a potent Cooler in feverish Heats. A Cataplasm prepared of the bruised Leaves, and apply'd to the Head, shaved, in continual Fevers, removes a Delirium, by procuring Sleep.

4. *Jambos sylvestris Malabarica*, *Samstravadi dictus*, *Caipa Tijambu*. H. M. The wild *Malabar* *Jambos*, call'd *Samstravadi*, the *Caipa Tijambu* of the *Hortus Malabaricus*. It is always seen with Leaves, Flowers, and Fruit; whence it is call'd by the Brachmans *Sada-pala*, that is, the Fruit-bearing Tree. The Pagans, call'd *Jogues*, or the Pilgrims, adorn themselves with the floriferous and fructiferous Sprays of this Tree, and hang them about their Necks as an Amulet, and use them in numbering their Prayers. The Leaves are eatable, and their expressed Juice, boil'd with Oil of Palm, to the Consistence of an Ointment, cures the Itch. The Kernels of the Fruit, pulveriz'd, and mix'd with Goats Dung, Sugar, and Butter-milk, and exhibited, cure a Diarrhœa; the same Powder, mix'd with Ginger, and the Juice of Lemons, cures a Tenesmus; taken in human Urine, is an Antidote against all sorts of Poisons; drank in Wine, it cures the Colic; when in Water, or outwardly applied, it eases the Pains of the Hemorrhoids; drank in Woman's Milk, it excites Vomiting, and cures the Jaundice, and other bilious Affections; and, applied to the Eyes, is a Remedy for ophthalmic Disorders.

5. *Jambos sylvestris*, *Samstravadi dictus alter*. *Tijeria Samstravadi*. H. M. The wild *Jambos*, call'd the Other *Samstravadi*, the *Tijeria Samstravadi* of the *Hortus Malabaricus*. The Wood of this Tree is hard and solid, and accommodated to the Use of Carpenters and Joiners; but the Virtues of the other Parts are just the same with those of the preceding.

6. *Jambos sylvestris montana*. The wild Mountain *Jambos*, the *Malla-katon*, *Tijambu* of the *Hortus Malabaricus*. There are no peculiar Virtues ascrib'd to this Tree. *Raii Hist. Plant.*

JANGOMAS, *Prunus similis*. J. B. *Pruno similis spinosa*. C. B. It is a Tree of the Size of an ordinary Plum-tree, which grows spontaneously in the Fields, and, also, in the Gardens of *Rasaim*, *Chaul*, and *Batequalo*, bearing a Fruit like that of the Sorbus or Service-tree, and of a Taste like that of a rough and astringent Sort of Plum. *Raii Hist. Plant.*

JANIPABA *Brasilensis*. Pison. & Marcgr. *Genipat*. Park. *Pomo similis Brasiliæna*. C. B. *Junipapceywa Brasilianorum*, *Nucum Folis*, five *Genipat*. J. B. *Junipa*. Rochefort. *Pomifera Indica tinctoria*. An. *Panitzjica Marum Malabarensibus*. H. M. A very tall and large Tree, growing in *Malabar*.

The tender Leaves, bruise'd in Water, which is the common Form in Use among the *Asiatæ*, and the Liquor drank, or the express'd Juice of the tender Fruits, is an excellent Remedy for *Aphthæ*, and Fissures of the Tongue, if it be held in the Mouth. The same Juice, instil'd into the Eyes, is good for an Ophthalmy. The Bark of the Tree, pulveriz'd, and mix'd with an Infusion of Rice, and the milky Juice of the mature *Indian* Nut, is an excellent Allayer of Thirst in the violent Heat of a Fever.

a Fever. They prepare, also, a Decoction of the Bark, which, mix'd with Honey, and exhibited, eases the Pain of the Gripes. The express'd Oil of the Seeds, taken with Ginger and Cumin-seeds, gives Relief in the Dropsy, eases the tormenting Pains of the Belly, and evacuates the same. The ripe Fruit, with its Kernels, is eaten by the Natives; and the glutinous, gummy, and pellucid Juice of the immature Fruit, concreting and reddening, or blackening, in the Rays of the Sun, becomes an excellent sort of Glue, us'd on all Occasions by the Inhabitants, and particularly by the *Jews* and *Portuguese*, in binding their Books, which, by that means, are secur'd from Worms. The immature Fruit, cut in Pieces, and rub'd on the Skin, dyes it of a black Colour, inclining to blue, which can by no means be wash'd out, but vanishes spontaneously at the End of eight or nine Days. The Savages colour themselves with it at their Feasts, and when they go to War, in order to appear more terrible to their Enemies.

JANIPABA is, also, the Name of the tallest Tree in *Brasil*, which has the Appearance of a Beech, and bears an Apple of the Size of an Orange, green when immature, and putrefying when ripe, like Medlars, in which State they are eatable, being us'd raw, not boil'd, and render'd more delicious by candying and preserving. They are prescrib'd, with Succels, in a Flux of the Belly; allay the burning Heat of the Mouth and Stomach; and are comfortable to sick and sound Persons; only they are subject to affect the Head with their strong Smell. The unripe Apples, reduced to a Cataplasim, are applied to the malignant Ulcers and Nodes of the Lues Venerea. The Wine, or express'd Juice, is preserv'd for the same Uses; but, when it grows old, it becomes hotter, and less astringent. The Natives of *Brasil* extract a Liquor from the unripe Fruit, by the Help of Fire, which they reserve for the Purposes aforesaid. *Rochefort* tells us, that the Fruit, in its Fall, makes a Noise like the Discharge of a Gun, which, he says, is owing to some Flatulences included within the Pellicles surrounding the Seeds, which, bursting by the Fall, give a sudden Vent to these flatulent Particles, and so occasion such an Explosion. Both Birds and Hogs, which feed on the fallen Fruit, have their Flesh and Fat ting'd with a violet Colour. *Raii Hist. Plant.*

JANITOR. A Name for the PYLORUS.

JANITRIX. The Vena Portæ is so call'd.

JANUA Emplastrum. The Emplastrum de *Betonica*, describ'd in *Lemery's Pharmacopée universelle*.

JANUARI CATAPLASMA. A Cataplasim for the Spleen, invented by one *Jannarius*, and describ'd by *Marcellus Empiricus*, C. 23.

JAPARANDIBA. *Marcgr. & Pisonis. Arbor Pomifera Brasiliensis, Floræ Rosæ, Fructu rotundo, Segmento superius velut ablato.* A pomiferous Tree in *Brasil*, with a Flower like a Rose, and a round Fruit, but flat at the Top, as if Part was cut away.

The Leaves, entire or bruise'd, being applied to the Region of the Liver, discuss an Hardness of the Hypochondria; and have the same Effect, when reduced by Art into the Form of an Apozem, and exhibited; whence they are to be reckon'd in the Number of Aperitives. *Raii Hist. Plant.*

JAPONICA TERRA. See TERRA JAPONICA.

JAPONICA VERNIX. A Vernish made of Gum Lac, and Spirit of Wine, describ'd in the *Collectanea Chym. Leydens.* C. 508.

JARUINA, *Nieremberg.* A Tree growing in the Island of *Jucaria*, and resembling a Fig-tree. It bears a Fruit a Span and an half long, soft as a Fig, savoury, and a good Vulnerary. The Leaves are said to restore Limbs when almost pull'd asunder. *Raii Hist. Plant.*

JASMELEUM. A sort of medicinal Oil, call'd by the *Persians*, *Jasme*, and prepar'd by putting two Ounces of the white Flowers of Violets into a Pint of Oleum Sesaminum, or Oil of Sesamum. It is in Request among the *Persians*, who use it at Entertainments, on account of its Fragrancy. It is very proper to anoint the whole Body, after Bathing; and for Bodies which require Heat and Relaxation. It has a pretty strong Smell, which is offensive to many. *Actius, Tetrab. 1. Serm. 1.*

JASMINOIDES. A Name for the *Rhamnus*; *spinis oblongis; cortice albo Monspeliensium.*

JASMINUM.

The Characters are;

The Leaves are generally pinnated; the Calyx consists of one Leaf, which is quinquesid. The Flower is monopetalous, funnel-shap'd, and pentapetaloid in the superior Margin, with a villous Centre, and generally five Stamina, sometimes fewer: The Ovary is seated in the Centre of the Calyx, is furnish'd with a long Tube, and becomes a Berry, containing generally two Seeds, but sometimes only one.

Boerhaave mentions ten Species of this Plant; which are,

1. *Jasminum*; vulgatus; flore albo. C. B. P. 397. *Tourn. Inst.* 597. *Boerb. Ind. A. 2. 216. Jasminum. Offic. Jasminum album.* Ger. 743. *Emac. 892. Park. Parad. 406. Raii Hist. 2. 1599.*
- Jasminum*, five *Gelseminum*, flore albo. J. B. 2. 101. *Gelseminum, vel Jasminum album vulgare.* Park. Theat. 1464. *Sambach,*

five Sambach, Jasminum. Chab. 112. WHITE JASMINE, or JESSAMY.

This is a Tree, or Shrub, shooting out long, slender, green Twigs or Branches, which must be supported, or else they will hang down; the are cloth'd with long pinnated Leaves, made of several sharp-pointed Pinnæ, set opposite to each other with an odd one at the End, larger than the rest. The Flowers come forth among the Leaves, several together on a common Foot-stalk, but each standing on a slender short one of its own, being longish Tubes, spreading out at the Top into five broad Segments, standing in very short Calyces, so that they easily fall off, when full-blown; they are of a white Colour, and of a pleasant agreeable Smell. Each Flower is succeeded by a Berry, divided into two Parts, but seldom coming to Perfection here. *Jessamy* is usually planted in Gardens, and flowers in *June* and *July*.

The Flowers only are us'd, and that but seldom in our Shops; though *Schroder* commends them, as good to warm and relax the Womb, to heal any Scirrhi therein, and to facilitate the Birth; as well as to be useful for a Cough, Difficulty of Breathing, Pleurisy, and Pains of the Stomach, Intestines, and Womb. The Oil, made by Infusions of the Flowers, is made use of in Perfumes.

The Oil prepar'd of the Flowers discusses crude Humours, and is serviceable to those who are subject to Colds and Catarrhs, and useful in the Winter Season. In Persons of an hot Temperature, it excites the Head-ach; and, if long smell'd to, endangers an Hæmorrhage from the Nose. It is principally serviceable in Contractions and Hardnesses of the Limbs; for it heats, mollifies, and relaxes the Joints, Tendons, and Nerves. It cures Disorders of the Uterus, not only when applied to the Hypogastrium and the Pudenda, but also drank, or administred in a Clyster: It is no less effectual in the Colic proceeding from cold and viscid Humours. The Flowers are principally us'd in Diapysms, and Perfumes for Gloves and Lincen. *Raii Hist. Plant.*

2. *Jasminum*; humilium; magno flore. C. B. P. 398.

The Bark of the Plant, with the Leaves, boil'd in Oil, or Butter, to the Consistence of an Ointment, cures Ulcers and phagedenic Abscesses. *Raii Hist. Plant.*

3. *Jasminum*; humile; luteum. C. B. P. 397.

4. *Jasminum*; luteum; vulgo dictum bacciferum. C. B. P. 398.

5. *Jasminum*; Indicum; flavum, odoratissimum. *Ferr. Flor. Cult.* 393.

6. *Jasminum*; Africanum; folio Illicis; flore solitario; ex alis foliorum proveniente. *Comm. Rav. Exot.* 6.

7. *Jasminum*; Azoricum; trifoliatum; flore albo odoratissimum. *H. A. 2. 159.*

8. *Jasminum*; five *Sambach Arabum*; Alpini. *J. B. 2. 102. Syringa Arabica, foliis Mali Aurantii.* C. B. P. 398. *Sambac Lesmin Arabicum. Alp. Egypt. Cap. 19. p. 182.*

The Flowers of this Plant are more serviceable for Ornament than Health. There is, however, an Oil prepar'd of them, which the Women use in their Baths, in order to warm and relax the Uterus; and they experience it to be very conducive to the discussing of scirrhous Tumors in that Part, and to facilitate the Birth; for which Purpose they both take the Oil warm inwardly, and anoint therewith the Region of the Uterus. It is us'd, taken at the Mouth, warm; or outwardly applied to anoint the Thorax, for Coughs, Difficulty of Breathing, and for mortal Kinds of Pleuritis, in which the Patient is incapable of expectorating but with the greatest Difficulty; also for a Peripneumony, and violent Pains of the Stomach, Intestines, and Uterus. *Prosper Alpinus, de Med. Egypt.*

9. *Jasminum*; Arabicum; foliis Limonii conjugatis; flore albo, pleno, odoratissimo.

10. *Jasminum*; Arabicum; Castanæ folio; flore albo, odoratissimo; cujus fructus Cossy in officinis dicuntur nobis. See COFFEE. *Boerb. Ind. alt. Plant. Vol. 2. p. 216.*

JASMINUM Indicum, & Mexicanum. A Name for several sorts of JALAPA.

JASMINUM Persicum. A Name for the *Lilac folio Ligustri*, and for the *Lilac; laciniato, folio.*

JASPACHATES. A precious Stone compounded of the smaragdian Jasper and an Agate. It has a lenient Virtue, and, taken inwardly, is effectual in Dropsies, hepatic Disorders, a Peripneumony, and Pleurisy; it renders, also, the Body florid, and of a specious Appearance. *Actius, Tetrab. 1. Serm. 2. C. 37.*

JASPIS. *Offic. Boer. 250. De Laet. 79. Calc. Mus. 253. Schw. 381. Aldrov. Mus. Metall. 884. Charlt. Foss. 32. Worm. 93. Kentm. 50. Mont. Exot. 14. THE JASPER.*

It is an opaque Gem, of a green, and, sometimes, a blood Colour. It is found in the *East Indies*, and agrees in Virtues with the Cornelian. *Dale.*

IATRALEIPTES, *ιατρολεπτης*, from *ιατρος*, a Physician, and *ελεψω*, to anoint, is a Physician, who pretends to cure Diseases by Ointments and Frictions. Such an one was *Diocletus*, mention'd by *Galen, de C. M. S. L. Lib 7. Cap. 5.* This Method of Cure was call'd *ιατρολεπτικη*, *Iatroleptice*; and was first instituted

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instituted by *Prodicus*, a Native of *Selymbria*, and a Disciple of *Æsculapius*, as we are inform'd by *Pliny*, *Lib. 29. C. 1.*

IATREON, *ιατρεων*, in the *Ionic* Dialect *ιατρων*, from *ιατρεω*, a Physician; in *Hippocrates*, means the Art or Function of a Physician, on which Subject he has written a Book, intitled *περι ιατρικης*, in which he treats principally of Surgery. *Castellus*.

IATRICE, *ιατρικη*, from *ιατρεω*, a Physician, is the Art of Medicine, where *ιατρικη*, Art, is understood. *Castellus*.

IATROCHYMICUS, a Chymical Physician, call'd *Chymiaters*. Thus we read, also, *Iatrochymia*, and *Iatrochemia*; by which we are to understand the Art of curing by chymical Medicines.

IATROPHYSICUS, an Epithet bestow'd on some Writings, which treat of physical Subjects with relation to Medicine. *Castellus*.

IATROS, *ιατρος*, from *ιατρεω*, to cure. A Physician, who is properly one that cures Diseases.

IBA-CURA-PARI *Brasilienfisbus*, *Marcgr.* is a pruniferous umbellated Fruit, growing in *Brasil*, and bearing a kidney-shap'd Plum with two Stones, but of no Use in Medicine. *Raii Hist. Plant.*

IBA-CURU-PARI *Brasilienfisbus*, *Marcgr.* is a nuciferous, or nut-bearing Tree, growing in *Brasil*, and producing a striated Fruit, shap'd like a Gourd, and distinguish'd by as many Striae as it contains Nuts, which are, perhaps, five, six, or seven, of the Bigness of our Chestnuts, whose Kernels are very white, and eatable, but of no Use in Medicine. *Raii Hist. Plant.*

IBA-PARANGA, *Marcgr.* A pruniferous or plum-bearing Tree of *Brasil*, producing a Fruit of a sweetish Taste, inclosing a Stone of the Shape and Bigness of an Almond, which contains three Kernels. The Fruit, or Plum, is eatable; but I find no Virtues ascrib'd to this, or any other Part of the Tree. *Raii Hist. Plant.*

IBEXUMA *Brasilienfisbus*, *Marcgr.* A bacciferous Tree, growing very plentifully in *Brasil*, bearing a globular Fruit, of the Size of a Tennis-ball, which, before it is ripe, is green, and mark'd all over with brown Tubercles, and contains a slimy Matter like Birdlime; but, when mature, turns black, and cleaves into five equal Parts, each containing brown, roundish, oblong Seeds, of the Bigness of Mustard-seeds. The Bark of this Tree is glutinous, and, when the outer brownish Skin is scrap'd off, excellently serves for all the Purposes for which *Spanish Soap* is us'd, and is much better than the *Fruit Saboon*, or Quity, which, by its Acrimony, is prejudicial to Clothes. *Raii Hist. Plant.*

IBERIS. A Name for the *Lepidium*; *gramineo folio*, five *Iberis*. *Sciatica* Cresses; call'd, also, *Agriocardamum*.

IBERIS humilior. A Name for the *Thlaspi*; *Virginianum*; *foliis Iberidis amplioribus & serratis*.

IBEX. *Offic. Aldrov. de Quad. Bisul. 730. Gesn. de Quad. 303. Charlt. Exer. 10. Jonf. de Quad. 53. Raii Synop. A. 77. Hircus ferus. Bellon. Obs. Ed. Clus. 20. THE STONE BUCK.*

This Animal is found on the highest Parts of the *Alps*. *Gesner* recommends the Blood, taken in Wine, against the Stone. The Dung is said to be good in arthritic and ischiadic Pains. And *Seraphinus* ascribes the same Virtues to the Coagulum, or Runnet, as to that of the Hare.

This is, by some, said to be the *ιβηρα*, mention'd by *Homer*, the Horns of which were employ'd for making Bows.

IBIBIRABA *Brasilienfisbus*, *Marcgr. & Pison.* A bacciferous Tree of *Brasil*, bearing a roseaceous Flower, and an umbilicated Fruit of the Size of a Cherry, and containing several soft Stones, which are eaten together with the Pulp. The Fruit is sweet, mix'd with somewhat of a resinous Taste; and, after frequent Use, leaves a burning Heat in the Throat, like what is produced from Pepper.

The Leaves and Flowers, mix'd with Camara, are very effectually us'd in Lotions of the Feet, for Pains of the Head. From the Flowers, gather'd early while the Dew is on them, as, also, from the Leaves, a Water is distil'd, which, being of a refrigerating, and, at the same time, of a mundificant Quality, is of excellent Service in Inflammations of the Eyes. *Raii Hist. Plant.*

IBIGA. The same as *ABIGA*, or *CHAMÆPITYS*.

IBI-PITANGA, seu *Cerasus Brasilianus*. *Pison. & Marcgr.* The *Brasilian Cherry-tree*. *Raii Hist. Plant.*

IBIRA *Brasilienfisbus*, *Marcgr. Pison.* A Tree growing in *Brasil*, and bearing a Fruit of an oval Figure, of the Size of a Filbert, of an aromatic and acrimonious Taste, which, dried and pulveriz'd, is us'd instead of Pepper. It is remarkable for its aromatic Virtue, and is not so acrimonious as the *Pimento*. The Bark of the Tree, on account of its extraordinary Viscidity, serves instead of Ropes, and for Matches to Guns: When first stript, it is white, after it is separated from the outer brown thin Rind, and becomes red in a Quarter of an Hour. *Raii Hist. Plant.* *Ibira* is, also, a Name for the *PINDAIBA*; which see.

IBIRACÉ. A Name for *Guaiacum*. *Raii Hist. Plant. Ind.*

IBIRAEEM, seu *Liquiritia sylvestris*. *Pison.* A wild Species of *Liquorice*, growing in *Brasil*. *Raii Hist. Plant.*

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IBIRA-PITANGA. See *BRASILIA*.

IBARAREMO. A Species of *Brasilian Alliaris*, with oval Leaves and Fruit, and a Wood so hard, that Chalks are made of it. *Pison. Raii Hist. Plant. Index.*

IBIRUBA *Brasilienfisbus*, *Marcgr. Pis.* A *Brasilian Plum-tree*, which, in Bark, Wood, and manner of Growth, resembles the *Guaiaba*. The Fruit is of a yellow or gold Colour, umbilicated, of the Size of an ordinary Plum, but pear-shap'd, and containing a Stone, and sometimes two, flat on one Side, where they are closely conjoin'd, and round on the other: This Stone is of the Size of a Cherry-stone, and like the *Ubapitanga*, and it is not easy to distinguish them. The Fruit is sold in the Markets, and very freely eaten with Ham. *Raii Hist. Plant.*

There is another Species of the *Ibiruba*, call'd *Ibiruba alba* or *white Ibiruba*.

IBIS. The Name of a celebrated *Egyptian Bird*, resembling, a Stork. The Fat is esteem'd resolutive and mollifying; but, if *Pliny* was well inform'd, this Bird has contributed more to the Improvement of Medicine by its Example, than to the Cure of Diseases by affording any Remedy; for the Hint of injecting Clysters into the Anus was, according to him, taken from the Ibis, which was frequently observ'd to fill its Throat with Sea-water, or that of the *Nile*, and to inject it into the Anus, by introducing its Beak, and, by this means, to procure Stools.

IBISCUS. The same as *ALTHÆA*.

IBIXUMA. A Name for the *ARBOR SAPONARIA*; which see.

ICACO. *American Plum.*

The Characters are;

It hath a rose-shap'd Flower consisting of several Petals, which are placed in a circular Order, from whose Flower-cup arises the Pointal, which afterward becomes an oval, soft, fleshy Fruit, inclosing a rough Stone of the same Form, in which is contain'd a round Kernel.

Miller mentions four Species; which are,

1. *ICACO fructu ex albo rubefcente. Plum. Nov. Gen. THE MAIDEN PLUM-TREE.*

2. *ICACO fructu nigro. Plum. Nov. Gen. AMERICAN PLUM-TREE.*

3. *ICACO fructu purpureo. Plum. Nov. Gen. PLUM-TREE WITH PURPLE FRUIT.*

4. *ICACO fructu luteo. Haust. THE YELLOW PLUM-TREE.*

None of these have any medicinal Virtues attributed to them, that I know of.

ICESIUM EMPLASTRUM. The Name of a Plaister mention'd by *Paulus Aegineta*; for a Description of which, see *ABSCESSUS*.

ICHNEUMON. *Offic. Raii Synop. A. 202. Charlt. Exer. 19. Gesn. de Quad. Digit. 568. Jonf. de Quad. 105. Aldrov. de Quad. Digit. 300. Bellon. de Aquat. 44. Ejuld. Obs. Ed. Clus. 96. THE EGYPTIAN RAT.*

This Animal is remarkable for its Enmity to the Crocodile, whose Eggs it takes all Opportunities of destroying; and, whilst the Crocodile sleeps, the *Ichneumon* creeps down its Throat, and eats through its Belly, in order, as it is said, to feast on the Liver.

The Part principally used in Medicine is the Dung, which, together with Mustard-seed, and Vinegar, is esteem'd a good Topic in the Gout; and is said to cure an *Alopecia*. A Broth, prepar'd of the Flesh, is said to be sudorific; to be good for the Colic, and venomous Bites; and to purify the Blood. It is an amphibious Animal.

Ichneumon is, also, the Name of an Insect.

ICHNOS, *ιχνη*. The Sole of the Foot. In *Hippocrates, Lib. de Art.* it imports a kind of Sock, made of Leather, or Lead, accommodated to the Sole of the Foot.

ICHOR, *ιχωρ*, by some is call'd *Sanies*; by others, an aqueous Humour of the Blood: Some take it for an aqueous and serous Humidity, either of the Blood, or of some other Humour, and that, most properly, when consider'd as in the Body: For, out of the Body, it is *Sanies*. *Ichores*, *ιχωρες*, according to *Galen*, are the thin and serous Humidities, contained in the Body, and its Vessels; and are observable in all the Humours, or are evacuated together with them; and have different Qualities and Appellations, according to the various Nature of the Humours, from which they are secreted. *Galen, Com. 2. in 6 Epid.* The same Author, *Com. 4. in Lib. de R. V. 1. A.* says, that *Ichores*, *ιχωρες*, in *Hippocrates*, are thin and serous Humidities: *Ichor*, *ιχωρ*, in particular, is the thinner and serous Part of the Blood, which is degenerated into an aqueous Nature, like the Serum of Milk, or Whey. But *Com. 2. in Lib. 6. Epid. & Lib. 8. de Placit. Hippocr. & Plat.* he writes, conformably to the Sentiments of *Plato*, that the serous Humidities, which are observed in all the Humours, correspond to Whey; for as in Milk there is the Whey, which is thin and watery, and not coagulated into Butter or Cheese; so, also, in the Blood, and the rest of the Humours, whether consider'd separately, or as mixed with the Blood, there is an aqueous Kind of Humidity, swimming upon

its respective Humour, which answers to *Ichor*, partaking of the Quality of the Humour whence it was produced. To this purpose, *Plato* writes, in *Timæo*, ἰχὺς δ' ὡς αἷμα, ὁ δὲ μελαίνης χολῆς ὀξείας τε, ἄσειον. "The *Ichor* which is the Whey of the Blood, is of a mild and gentle Quality; but that which is the Whey of black and sharp Bile, is of a ferine and incorrigible Nature." By ἰχθυοειδὲς αἷμα, "Ichor-like Blood," in *Lib. 6. Epid. Sect. 2. Aph. 29.* as expounded by *Galen*, "We are not to understand, simply, a thin and watery Blood, but such as is affected with some virulent and malignant Quality." And again, he says, that the Epithet of ἰχθυοειδὲς, *Ichor-like*, is applied to Blood, containing a thin corrupt Humidity, not such as is aqueous, and void of Corrosiveness, but what is acrid and corroding. Ἰχὺς, in *Aristotle*, *Lib. 2. de Part. Animal. & Lib. 3. de Hist. Animal.* signifies a pituitous Excrement, and a crude, aqueous, unconcocted Blood. And *Homer* calls the thin Humour, flowing from the Skin of *Venus*, wounded by *Diomedes*, by the Name of *Ichor*. *Hippocrates*, *Lib. 2. Epidemic.* calls the corrupt, thin, and serous Humours, which, by an Irruption, excited an Itching of the Skin, *Ichorres*, ἰχῶρες. And, *Lib. de Rat. Viſc. in Morb. acut.* he calls those acrimonious and corrupt Humours, which kindle up a burning Fever, δειμίας καὶ χολώδεις ἰχῶρες, "Acrid and bilious Ichors." That serous and mucous Humour which flows from the Uterus, during the Birth, and immediately after, is called, by *Aristotle*, *Ichor*. A thin Fluid is, also, called *Ichor*, which flows from some Kinds of malignant Ulcers; especially when the Nerves and Tendons are injured. And when the Parts near the Joints are wounded, or exulcerated, a thin *Ichor* is discharged, which the Farriers call Joint-water, and *Hildanus* names *Hydrarthron*.

ICHTHYA, ἰχθύα. The Skin of the *Squatina Marina*. Monk-fish; which is said to be serviceable in an *Alopecia*. See **SQUATINA**. It also imports an Hook for the Extraction of the Fœtus, so called, says *Galen*, from the Likeness it bears to the Scale of a Fish: But it seems more probable, that it acquired this Name from its Similitude to a Fish-hook. Ἰχθύα is, also, explained, by *Erotian*, Raspings.

ICHTHYELÆUM. The Oil of Fishes.

ICHTHYEMATA, ἰχθυήματα, properly imports the Scales of Fishes; but, figuratively, the Raspings, or Scrapings, of the Barks of Trees.

ICHTHYITES. The Name of a Stone; so called, because a Cavity is found in it, in Shape resembling a Fish.

ICHTHYOCOLLA. *Offic. Bellon. de Pisc. 104. Rondel. de Pisc. 2. 177. Gesn. de Aquat. 50. Raii Ichth. 244. Ejusd. Synop. Pisc. 114. Aldrov. de Pisc. 567. Hufi Ichthyocolla. Schrod. 5. 329.* THE ISINGLASS FISH.

Isinglass is drawn from the Entrails, Fins, and Tail, of a large Fish, called, according to some, by the same Name; and *Hufi*, according to others; found in the *Volga*, *Danube*, and some other great Rivers. It is an Ingredient in some agglutinant Plaisters, and is, also, reckon'd emollient and resolvent. Wine Merchants use it in fining their Wines; for which Purpose, they beat up a sufficient Quantity of it with Wine, and, afterwards, throw this Mixture into the Cask, where it first forms a Skin, or fine Network, on the Surface; and, then, precipitates to the Bottom, carrying along with it all the grosser Parts of the Liquor; so that the Filtræ may, in this Case, be said to pass through the Liquor, and not the Liquor through the Filtræ. This is a very harmless Way of purifying Wine; which is more than can be said of the other Methods.

The Glue of this Fish, commonly called Isinglass, is used, and is a yellowish Substance, made up in a spiral Form, of a glutinous Consistence, and of no Smell: It is prepar'd of the Skin, Intestines, Stomach, Fins, and Tail, of this Fish, in the following Manner. These Parts of the Fish, when cut in small Pieces, are macerated in a sufficient Quantity of Water: Then they are boiled over a slow Fire, to the Consistence of a Poultice; after which they are to be moisten'd, and spread into Pellicules, before they become cold, and reduced to a hard Mass: This Substance, according to *Schroder*, is of a drying, incarnating, and, in some measure, of an emollient Quality; it inspissates the Blood, and is of an anodyne Nature: It is used in Exulcerations of the Lungs, and Fauces; and, in a Fluor Albus, it is exhibited with Success: Some, also, prescribe it in Dysenteries. It is of a conglutinating Nature, when externally applied. *Dale*.

ICICARIBA. See **ELEMI**.

ICTAR, ἰκταρ. *Galen*, in his *Exegesi*, and *Erotian*, both mention this Word, as occurring in *Hippocrates*: And *Galen* informs us, that it imports the Female Pudenda. But no such Word occurs in the Copies of *Hippocrates* now extant. *Foesius*.

ICTERIAS. The Name of a Stone, or Gem, mention'd by *Pliny*, *Lib. 27. Cap. 10.* and superstitiously recommended against the Jaundice, on account of its Colour.

ICTERITIA. The same as **ICTERUS**. *Ictertia Rubra* is an Erysipelas: *Ictertia Alba* is a Chlorosis.

ICTERUS, ἰκτερος.

Among the various Species of Cachexies, or depraved Habits of Body, there is one, which discovers itself by a yellowish and somewhat blackish Colour of the Skin; and which is, by Phy-

sicians, called *Icterus*, *Morbis Arquatus*, and *Morbis Regius*; which are equivalent to what we call the *Jaundice*. This Disorder is no more than a vitiated and corrupted State of the Blood and Humours, by means of an excrementitious Bile, arising from a Fault of the bilious Ducts, greatly injuring the Functions of the whole Body, and rendering the Skin highly unseemly, by a yellow or livid Colour.

The Signs by which this Disorder discovers itself, are principally these following: First, In the Tunica Albuginea of the Eye, there is perceived a certain yellow Colour, with which, in Process of Time, the whole Skin is tinged: The Urine is thick, of a dark-red Cast, and tinges Linen with a Saffron-colour, whilst, in the mean time, the Excrements, discharged by Stool, are pale. As the Disorder grows worse, the Saliva becomes yellow, and every thing the Patient takes, seems to have a bitter Taste. Besides, those labouring under this Disorder complain of a certain Sensation of violent Stricture, Pressure, and Tension, in the Right Hypochondrium, as, also, of an Uneasiness about the Præcordia, a Difficulty of Breathing, and a preternatural Uneasiness of the whole Body.

The History and Progress of this Disorder are accurately and fully described by some of the most ancient Physicians, and, especially, by *Aretæus*, who, in *Lib. 1. Chron. Cap. 15.* uses the following Words: "The Jaundice is a Disorder affecting the whole Habit, and spreading its Influence to every Member of the Body; but, particularly, the Whites of the Eyes, and those Parts of the Forehead which are most contiguous to the Temples, become preternaturally yellow: Those who labour under a black Jaundice, are render'd unseemly, by a Colour resembling that which results from a Mixture of black and green: They are, also, cold, weak, listless, sad, and dejected; their Breath is fetid, and every thing they take has a bitter Taste; they breathe with Difficulty, and perceive a kind of biting Pain in the Stomach; their Excrements are porraceous, blackish, dry, and discharged with considerable Difficulty; their Urine is high-colour'd, and somewhat inclining to black; they are, also, afflicted with Crudities, loath their Aliments, and are tormented with Watchings, Sadness, and Melancholy. But, in the whiter Jaundice, the Colour of the Patient resembles that which results from a Mixture of white and green, his Mind is more brisk and chearful; he is, at first, unwilling to take his Aliments; but, after he has begun, he eats heartily; he digests more easily than those who labour under the other Species of Jaundice; his Excrements are white, dry, and chalky, and his Urine of a Saffron-colour. In both Species the whole Body itches, a small and biting Heat is perceived in the Nostrils; bitter Things, when tasted, do not appear bitter; for, if the Tongue is cover'd with Bile, the Idea of Bitterness is not, by that means, excited in the Mind, whereas sweet Things appear bitter to the Taste. If it is evident, that none of the Viscera are over-heated, the Disorder is not dangerous, but lasts for a long time: If it lasts long, and any of the Viscera becomes inflamed, it degenerates into a Dropsy, and many, who have laboured under it, have died of colliquative Sweats, without any Signs of a Dropsy." From what has been said, I think it plainly appears, that almost all the Functions of the Body are preternaturally affected in this Disorder. The Reason of this is sufficiently obvious; for, as a sound and natural State of the Functions principally depends upon, and is supported by, a due and laudable Crasis of the Blood and Humours, so, on the contrary, when this due Crasis is vitiated by impure, and more or less corrupted Humours, it is not to be wonder'd at, if, by this means, all the Actions of the human Body, whether vital, natural, or animal, should be more or less injured.

But the Observations of various Authors are still more capable of convincing us of the singular Efficacy of the excrementitious Bile, in inducing a Change on the Solids, as well as the Fluids, of the human Body. Thus the Blood, taken from the Vein of a Person labouring under the Jaundice, is frothy and yellow, according to *Theodorus Wingerus*, who affirms, that he has sometimes been surpris'd to find, by Venesection, that, in Patients of this Kind, there was not one Drop of red and florid Blood, but only such as was of a yellow Colour, resembling that of the Urine of Horses: "Nay, says he, in a Woman, who labour'd under a violent Jaundice, I saw the Blood and Urine, which she evacuated, highly thick, and similar to each other; but fifteen Days after, when the Jaundice was almost entirely removed, the Blood taken from her Veins was highly red and florid." The Viscera and Intestines, such as the Lungs and Stomach, also, lose their natural Colour, and are, as well as the Fat and Membranes, more or less tinged with a yellow Colour. With respect to this, the Reader may consult *Zacutus Lusitanus*, in *Prax. admirabili*, *Lib. 3. Paſſenius*, in *M. N. C. An. 4. Obs. 194.* and *Thomnerus*, who, in his *Observat. Lib. 3. de Ictero, Obs. 1.* makes mention of a certain Cardinal, who died of a Jaundice, the whole Parts of whose Body he found yellow upon Dissection. Besides, *Kerkringius*, in his *Spiegl. Anatom.* tells us, that he found the Bones tinged with a yellow Colour, in a Boy born of a Mother who labour'd under a Jaundice.

And

And *Doleus*, in his *Encyclopæd. Medica*, Lib. 3. Cap. 8. informs us, that, in a Man of forty Years of Age, who died of a Jaundice, he saw all the Viscera of the Abdomen and Thorax, the Brain itself, together with the Bones and Cartilages, tinged with a yellow Colour. 'Tis, also, remarkable, that *Galen* and *Sextus Empiricus* inform us, that, to Persons labouring under a Jaundice, all Objects appear yellow, in consequence of the yellow Colour of their Eyes. The Truth of this Observation is called in question by *Hieronymus Mercurialis*, in *Prælect. Bononiensibus*, because neither *Celsus*, nor *Cælius Aurelianus*, *Aetius*, nor *Avicenna*, make mention of this Symptom. But I, myself, have had two Instances of it, in Persons pretty far advanced in Years, who labour'd under this Disorder.

But, that we may the more accurately know the Nature of this Disorder, and, consequently, be the better able to form just Notions of its Causes, Events, and Method of Cure, we must observe, that the yellow Jaundice, in particular, is of various Kinds, widely different from each other; for we find, from daily Experience, that one Species of it is obstinate, long continued, and not to be cured without great Difficulty; whilst another soon ceases, and is easily removed by proper Remedies: That another Species is permanent and continual, whilst another returns at stated Periods, and only continues, for Instance, during a few Hours; or is, in some Patients, annual. Besides, there is an idiopathic and symptomatic Jaundice: The Causes of the former are deeply rooted in the Liver; but the latter appears in Conjunction with some other Disease: Sometimes, for Instance, a convulsive and hysteric Colic, a Cardialgia, or the Iliac Passion, a Vomiting or Purging, after the Use of too drastic Emetics, or purgative Medicines. There is, also, a critical Jaundice, which, in acute Fevers, is sometimes a salutary Sign; and, at others, a highly unlucky Omen; when, for Instance, it is either accompanied or succeeded by an Inflammation of the Stomach. There is, also, a great Difference between the yellow and black Jaundice, both with respect to the Causes, from which they proceed, and the Danger with which they are attended, since, in the latter, a far greater Corruption of the Humours, and a more considerable Injury done to the Viscera, are to be suspected.

Having thus given the History and Differences of the Disease, we now come to investigate the Causes, which give Birth to it, and the several Symptoms, with which it is attended. 'Tis, therefore, agreed upon among all Physicians, that, in a Jaundice, the Liver is almost always preternaturally affected. Let us, therefore, inquire, how this Disorder of the Liver contributes to the Production of a Jaundice. Now, if we consider, that the Liver is, by Nature, furnished with such Plenty and Variety of Ducts, principally for this Reason, that it might secrete from the Mass of Blood and Humours that sulphurous and hot Liquor, which is, as it were, alcaliz'd with the viscid Lymph, and which we call Bile, and, after having secreted it, convey it, by peculiar Ducts, to the Duodenum, in order to promote Digestion, we must readily perceive, that, when the Course of the Bile to the Intestines is either obstructed, or totally intercepted, it must, of course, regurgitate to the lymphatic Vessels and Blood, and, consequently, prove the immediate and principal Cause of the Jaundice. And since, by this means, the Serum, and nutritious Juices, are infected by the Bile, it will be no hard Task to explain, why the natural Colour of the Skin should be changed to that of yellow, why the Nutrition should be vitiated, and the Urine render'd thick, and tinged with a redish Colour. Hence, also, the Reason is obvious, why the Faeces, discharged by Stool, are not yellow; why the Digestion of the Aliments becomes languid; and why many Disorders are perceived about the Primæ Viæ.

But, since there are so great Differences among the several Species of Jaundice, as we have above represented, 'tis necessary we should, in a more particular and accurate Manner, inquire what Parts and Ducts of the Liver are generally preternaturally affected, and from what particular Causes their Disorder arises. Now, that these Causes consist either in the Fault of the Matter obstructing the Vessels, or in the spasmodic Motions contracting these Vessels, is universally allow'd, by every one who is, in the least, acquainted with the Theory of Medicine. Let us, therefore, take an accurate Survey of each of these States.

First, then, 'tis certain from Experience, that Spasms frequently lay a Foundation for the Jaundice; for when this Disorder seizes the Patient suddenly, which it frequently does, and, terminating in a short time, recurs at certain Periods; then the Cause seems to reside neither in the peccant Matter, nor the Obstruction and Infarction of the Vessels, but rather in the spasmodic Constriction of the Ductus Cholodochus, which is furnished with a highly sensible nervous Coat. For this Reason we find, that violent Anger has a powerful Tendency to induce a Jaundice; as, also, that corrosive and drastic Medicines, whether of the emetic or purgative Kind, or the Bile in Cholera, Cardialgias, and the Beginnings of bilious Fevers, sometimes produce this Disorder. Now all these Things, duly compared with each other, sufficiently convince us of the spasmodic Agitation of the biliary Ducts: Besides, in dissecting those who have died of Dropsies, there are not found in the Duct, which conveys the Bile to the

Duodenum, the faintest Traces of an Obstruction, either from a calculous, a mucous, or viscid Matter.

We now come to consider the other Cause of a Jaundice, the Obstruction of the Vessels, of which we have no Reason to be in the least dubious, since it is certain, from daily Experience, that the Gall-bladder is frequently filled with Stones, of a considerable Bulk. This, also, holds true, with respect to the other hepatic Ducts, especially that called the Cholodochus; which are sometimes found to contain not only Stones of different Sizes and Colours, but also a gritty, tephaceous, and viscid Matter; but the more soft and fine this Matter is, the Symptoms are proportionably the milder. With respect to this, the Reader may consult the *Miscel. Nat. Curios. An. 1. Obs. 44.* and *Bonetus* in *Sepulchreto*, Lib. 3. Sect. 8. Obs. 36.

But a Jaundice is not always induced by small Stones obstructing and infarcting the biliary Ducts: Thus, *Ettmuller*, in *Praxi*, Part 2. tells us, that, upon dissecting a Woman, there were several large and small Stones found in her Gall-bladder; tho', during her Life, she had been perfectly free from a Jaundice. *Petermannus*, also, Professor at *Leipsic*, in his *Dissert. de Scrutinio Icteri ex Calculo Vesicæ felleæ*, informs us, that, in an old Woman, he found scarce any Bile, but only seventeen Stones in the Gall-bladder; tho', at the same time, the Patient, during Life, was entirely free from a Jaundice. Since these Phenomena sometimes happen, we must endeavour to account for them, which, in my Opinion, may be done in the following manner. So long as the Stone in the Gall-bladder is not mov'd, but remains at Rest, like the Stone in the Ducts of the Kidneys, it creates no Uneasiness. But, when it is forc'd from its Place, and propel'd to the cystic Duct, sticking there, it, by a violent Distention, produces excessive Pains and Spasms, which draw all the biliary Ducts into Consent. Thus it proves the Cause of the Jaundice, and of all the terrible Symptoms, with which it is complicated; and which, when the Stone is discharged by Stool, totally ceases, as I have frequently observ'd.

There are some Signs, by which we may be pretty well assur'd, that there are Stones in the biliary Ducts; such as an oppressive and lancinating Pain in the Right Hypochondrium, about the Pit of the Stomach, constantly afflicting the Patient, though with some Remissions, and attended with a violent Uneasiness of the Præcordia, a Difficulty of Breathing, a Compression of the Breast, a Nausea, and sometimes Vomitings, Constipation of the Belly, Restlessness, and Watchings. Besides, Patients who have the Misfortune of Stones in the biliary Ducts, cannot walk erect, but go with their Bodies more or less bended, and stooping.

But a Jaundice is not only produced by Bile concentered in the biliary Ducts, but, also, by an Infarction of the minutest Ducts, subservient to the Secretion of the Bile, by a tenacious and viscid bilious Matter; for, when this happens, the Bile must necessarily be convey'd, not to the biliary Ducts, but through the distended lymphatic Vessels, along with the Lymph, to the Blood. With respect to this, *Jacobus Cameracensis*, in *Epist. ad Matthiolum*, informs us, that he saw the Veins of the Liver, in its concave Part, before they terminate in the common Trunk of the Vena Portæ, obstructed and distended by small Stones, which were externally black, and internally of a yellowish Colour. *Borelli*, also, informs us, that he found the Glands, adjacent to the hepatic Artery, and the biliary Duct, which runs to the Intestines, so tumid and distended as to compress this biliary Duct to such a Degree, that the smallest Instruments could scarcely have Access into it. Besides, *Cabrolus*, in *Obser. Chirurg. 10.* and *Meckern*, in *Obser. Chirurg. 43.* have observ'd, that a Jaundice may be produced by a Compression or Obstruction of the Ductus Cholodochus, by means of fleshy Excrescences. And *Argentorius*, in Lib. 4. *Aph. Hipp.* tells us, that, upon dissecting a certain Cardinal, he found the Ductus Cholodochus entirely dry, and totally obstructed; which Circumstances had produced the Jaundice, under which he labour'd whilst alive. But Instances of this kind are very rare.

We now come to consider the immediate productive Causes of this Disorder; the most considerable of which is a Plethora, or a larger Quantity of Blood and Humours than Nature can bear. That this Circumstance should produce a Jaundice, is not at all surprising; for, since, in a natural State, the Circulation of the Blood through the Liver is highly languid, in consequence of the Want of a strong Impulse in the Vena Portæ, it must of necessity happen, that, in a plethoric State, the thick and viscid Blood must very easily stagnate there, and obstruct the minute Vessels. Hence, also, we observe, that, in Leucophlegmatias, Scirrhuses, and Indurations of the Liver, for want of a Separation of the bilious Parts, the Skin assumes a yellow, and somewhat greenish Colour. Nor is it to be doubted, but the black Jaundice, of all others the most terrible and obstinate, is produc'd by an almost irreparable Disorder of the Liver, and a violent Corruption of the Bile.

Aliments of hard Concoction, such as Pease, Beans, Lentils, and Cheese, may prove the antecedent Causes of a Jaundice, since, in consequence of their firm and coarse Texture, especially when used in large Quantities, they are, with Difficulty, digested, and generate a thick and impure Blood. To this Class,

also, belong acid and austere Wines, acefcant Ales, and Waters impregnated with clayey and tophaceous Particles; all which produce still worse Effects, when joined with an idle and sedentary Life. But nothing contributes so powerfully to the Production of those Diseases, which arise from Disorders of the Liver, as the immoderate Use of rich Wines, and especially Brandy, by which the Chyle and nutritious Juices are coagulated, and such a Dyscrasy of the Bile, as is highly prejudicial to Health, induced. Besides, under a bad Regimen, we may justly include the Passions of the Mind; among which, besides Anger, long-continued Grief is of the most unlucky Influence, since by generating a thick Blood, and consequently rendering its Circulation proportionally slower, it, of course, powerfully contributes either to the Production, or Recalling, of a chronical and obstinate Jaundice.

A Jaundice, also, frequently arises from some previous Disorder. Hence, that intermittent Fevers, preposterously suppress'd by Astringents, are frequently succeeded by a Jaundice, is not only confirmed by Experience, but, also, by the Authority of *Ramazzini*, who gives us an Instance of a Jaundice produced by the Suppression of such a Fever, by means of the *Peruvian* Bark. It, also, frequently happens, that a Jaundice is produced by an Obstruction, or Diminution, of the menstrual and hæmorrhoidal Discharges.

The Prognostics of this Disorder vary with respect to Age, the Habit, the Strength, and Constitution of different Patients, as, also, according to the Virulence or Mildness of the Causes, and the Duration or Termination of the Disease; for, when this Disorder seizes young Persons, is single, and not complicated with other Diseases, such as a quartan Fever, the hypochondriac Disorder, an Obstruction or Scirrhus of the Liver, and is not of long standing, it may be easily removed, by proper Remedies both of the dietetic and pharmaceutic Kind. But if, after the Cure, it frequently recurs, accompanied with a yellow-greenish Colour, and an Induration of the Liver, it generally terminates either in an Hæctic, or a violent Hæmorrhage. A Jaundice arising from the violent Transports of Anger, or the spasmodic Stricture of the Intestines and biliary Ducts, by means of a drastic Purgative or Emetic, easily yields to proper Medicines, if the Cure is attempted in due Time. But this Disorder is not to be cured without greater Difficulty, if it is encourag'd by long-continued Grief, or if the Body is weaken'd by some previous Disorder.

When a Jaundice is complicated with a Fever, the former often produces a critical Solution and Termination of the latter. Thus, in Practice, I have frequently had an Opportunity of observing, that those Fevers which are excited, in hypochondriac Patients, by the Transports of Anger, and are accompanied with Spasms of the lower Belly, bilious Vomitings, and an intense Heat, are happily terminated by a supervening Jaundice; which is, also, confirmed by *Hippocrates*, who, in *Sect. 4. Aph. 63.* uses the following Words: "If, says he, a Jaundice seizes a "severish Patient, on the seventh, the ninth, the eleventh, or "fourteenth Day, it is a lucky and salutary Circumstance, unless, at the same time, the Right Hypochondrium should be "indurated." In like manner a Jaundice appearing in intermittent Fevers, especially about the Beginning of the Paroxysm, is no unlucky Circumstance, since upon the Cessation of the former, the latter generally disappears. A Jaundice happening in an Inflammation of the Liver, Duodenum, or Stomach, renders the Safety of the Patient precarious and uncertain. A Jaundice, also, frequently seizes pregnant Women about the End of their Gestation; but in this Case it is easily removed by seasonable Venesection. A Stone contained in the Gall-bladder, of so large a Size as almost entirely to fill it, is frequently the Cause of a Jaundice, and some very terrible Symptoms; the most considerable of which are, a burning Pain, about the Pit of the Stomach, in the Left Side; violent Gripes about the same Side, a Nausea, Vomitings, Faintings, Difficulty of Breathing, and an unseemly livid Aspect. When these Symptoms appear, the Disease is dangerous, and terminates in a fatal Ascites. Hence, in dissecting Persons, who have been cut off by these Symptoms, I have frequently seen the whole Gall-bladder filled with small Stones, the adjacent Parts, such as the Colon, and Bottom of the Stomach, ting'd with a yellow Colour, and their external Parts corroded, perhaps, by the Transudation of an acrid Bile through the Pores of the Gall-bladder. In like manner the Repletion of the Gall-bladder, by a large Quantity of calculous Concretions, frequently lays a Foundation for a convulsive Asthma, which generally brings on a fatal Dropsy, both of the Thorax and Abdomen.

A Jaundice of the black Kind, in consequence of the violent and malignant Corruption of the Humours, which assume a fix'd, terrestrial, acid, and corrosive Quality, generally induces a Train of fatal Symptoms, and, if at all curable, requires uncommon Pains and Judgment for that Purpose. This Species of the Disorder is principally incident to old Persons, and easily degenerates into a Marasmus, a Cachexy, cedematous Tumors, a malignant Erysipelas, a Sphacelus, or violent Hæmorrhages.

The CURE.

In order to the judicious and prudent Cure of the Jaundice, 'tis absolutely necessary, that the Physician should pay a due Regard to the various Causes, Constitutions, Seasons, and other important Circumstances; for, in proportion as these vary, proportionably different Measures of Cure are indicated. Thus, for Instance, if by drastic Medicines, Poisons, or the Consent of the Parts, in a spasmodic, hæmorrhoidal, or hysteric Colic, a Jaundice, which frequently happens, is suddenly induced, and is as yet recent, 'tis highly probable, that it arises from a violent Stricture of the biliary Ducts, distributed through the Substance of the Liver; in which Case the first Intention of Cure is, to relax the tense and constricted Parts, and, by that means, to restore the free and natural Secretion of the Bile, and its Descent into the Intestines; and then, in the second Place, to mitigate and correct the Acrimony of the Bile, which is the Cause of the Spasms.

The former of these Intentions is excellently answered by Emulsions of the Four greater cold Seeds, together with those of Poppies, Hemp, and some others, which, on account of their highly subtile and vaporous Sulphur, are, by *Sylvius*, greatly extolled, and may be commodiously prepared with Waters of a sedative Virtue, such as those of Lime-flowers, of the Flowers of the *Egyptian* Thorn, of Cowslips, of Lily of the Valley, of common Chamomile, of Yarrow, and of black Cherries, adding a sufficient Quantity of the Syrup of white Poppies. For answering this Intention, the anodyne Liquor is, also, highly efficacious, if mixed with a few Drops of the distil'd Oil of Mace; or, in Cases where there are Colics, and hysteric Disorders, with the Essence of Castor, the Essence of Saffron, and the Laudanum of *Sydenham*. But, in order to allay and correct the Acrimony of the Bile and Humours, nothing is more efficacious than the absorbent, and gently nitrous Powders. Thus, for Instance:

Take of Crabs-eyes, Mother of Pearl, and the Pulvis Marchionis, each one Dram; of prepar'd Amber, and purified Nitre, each half a Dram; and of the Oil of Mace, four Drops; to which may be added, according to the Circumstances of the Patient, a few Grains of the Extract of Castor, or Saffron.

As a Vehicle for this Medicine we may use Whey, Milk diluted with Water, an Emulsion of sweet Almonds, or Water-gruel, mixed with a Spoonful or two of the Oil of sweet Almonds.

Anodyne and paregoric Preparations, applied warm to the Region of the Præcordia, also, afford considerable Relief. For this Purpose we recommend a Bladder, filled with the Flowers of Elder, common Chamomile, Yarrow, and Sage, boil'd in Milk: Or, if this Preparation should prove disagreeable to the Patient, an Epithem prepar'd of equal Portions of Treacle, expressed Oil of Nutmeg, and Sperma-ceti, with the Addition of a little Saffron, and Camphire, may, with great Advantage, be applied to the Pit of the Stomach, especially when the Disorder is attended with a Cardialgia, or violent Spasms of the Stomach, and an excessive Vomiting. Clysters prepared of the paregoric Species, boiled in Milk, with the Addition of a sufficient Quantity of Fat, of the Oil of Chamomile by Coction, are, also, of singular Efficacy, since they prove, as it were, an internal Bath, and remarkably cherish and relieve the Parts afflicted with painful and racking Spasms.

The same Method of Cure, and Medicines, are to be used, when an obstinate Jaundice, accompanied with violent Spasms, arises from small Stones firmly impacted in the cystic Duct, or the Ductus Chologochus. These Medicines, also, exert their usual happy Effects, in Cases where a Stone, lodged in the Ureters, produces violent Symptoms in the adjacent nervous Parts; for, upon the Removal of these Symptoms, in consequence of the Relaxation of the Spasms, Nature, assisted only by her own Force, often happily expels the Obstacle from these narrow Passages.

These are the principal Measures and Medicines to be used in that Species of Jaundice, which arises from a spasmodic Stricture of the biliary Ducts, and which is easily remov'd. Let us now inquire, what Steps are to be taken in the Cure of that more obstinate, and frequently recurring Species, which draws its Origin from an Obstruction of the Vessels of the Liver. In this Case, therefore, the Intentions to be pursued are these following: First,

To dissolve and remove the Obstructions of the biliary Ducts, arising from the mutual Concretion of the bilious, viscid, terrestrial, and cretaceous Sordes, and by this means to restore the free Course of the Bile to the Duodenum, that the Business of Chylification may be duly carried on. Secondly,

By proper Medicines to open, and render pervious, the Vessels subservient to the Secretion of the Bile, and which are infarcted with a tenacious Blood, that by this means they may freely transmit the Bile to the biliary Ducts: And, thirdly,

To render the languid and obstructed Circulation of the Blood, which is the Foundation of the Obstructions and Concretions, through the whole vascular System of the Lungs, natural and equable.

These Intentions are most effectually and commodiously answered by Decoctions, or Apozems, prepared of such Ingredients as are possess'd of a kind of specific Virtue in resolving viscid Humours, and opening the obstructed Passages of the Liver; such as the Five aperient Roots, and that of Turmeric, either boiled in Water, or reduced to a Syrup, which is commonly sold in the Shops. To this Class, also, belong the lactiferous Plants; such as Lettuce, Vipers-grass, Dandelion, Goats-beard, Sow-thistle, Endive, and Hawk-weed, which produce very happy Effects, if boiled in Water, or if their recent express'd Juice is exhibited either with Whey or Asses-milk. I am of Opinion, that the same Virtues are justly to be ascrib'd to the Juice of recent Grass. Hence, *Sylvius* and *Boerhaave* inform us, that in the Winter-time, when Cows and Oxen feed upon Straw and Hay, their Livers have been found full of small Stones, which were no longer to be discover'd, when, in the Summer-time, they came to eat Grass; without doubt, because, by the resolvent Juices of the Herbs, the Liver is powerfully purg'd of viscid and coagulated Humours. And, for Patients labouring under a Jaundice, I have often, with great Success, prescribed a Decoction of the Roots of Grass, Eryngo, Succory, and Fennel.

But, in the Cure of all Disorders of the Liver, and consequently that of the Jaundice, nothing affords a more speedy, infallible, and efficacious Relief, than Mineral Waters, both of the hot and cold Kind, drank in Conjunction with a proper Regimen; since, not only in consequence of the Quantity of Waters, impregnated with a spirituous elastic Principle, but, also, on account of the neutral Mineral Salt, with which they abound, they are highly beneficial and powerful in resolving viscid Humours, removing Obstructions of the Vessels, and promoting all the several Excretions. And, to declare my Sentiments freely, a chronical and often-recurring Jaundice is rarely or never to be cured in a satisfactory manner, without the due Use of salutary Mineral Waters, such as those of *Egra*, *Spaw*, *Schwalbach*, and the *Caroline Springs*.

Neutral Salts, also, which, on account of their aperient, detergent, diuretic, and purgative Qualities, are accounted beneficial against a Jaundice, deserve our particular Consideration. Among these, the most considerable are, the Terra foliata Tartari, Tartarus Tartarizatus, Sal Polychrestum, the Arcanum duplicatum, purified Nitre, antimoniated Nitre, a Solution of Crabs-eyes, with Citron-juice, vitriolated Tartar, and Borax. To this Class, also, belong the Salts obtain'd from the Mineral Waters of *Epsom*, *Egra*, *Sedlitz*, and the *Caroline Springs*: But the Efficacy of these Salts is increas'd, if they are exhibited in a sufficient Quantity of Whey, or some proper Decoction, and their Use is persisted in for a considerable time. Nor are we to omit Rhubarb, which, in Disorders of the Lungs, is of a singular and specific kind of Virtue, in resolving and correcting the Humours, whether exhibited in Substance, mix'd with the above-mention'd Salts, or infus'd in Wine, together with the above-mention'd Herbs, or reduc'd to a Tincture, or an Essence, with the Terra foliata Tartari.

The last Intention of the Physician is, by gently corroborating Medicines, to restore the due and natural Tone of the weaken'd Vessels of the Liver, which is the Cause of the Obstructions and Concretions. This Intention is excellently answer'd by chalybeate Preparations, especially of the liquid Kind, such as the Tincture of Steel, prepar'd with Apples, or Quinces; the Tinctura Ludoviciana; the Tinctura Zwolfferi; as, also, the Peruvian Bark, and that of Cascarella, exhibited either in Powder, or in a Decoction. This Intention is, also, excellently answer'd by Pyrmont Waters, in consequence of the chalybeate Principle with which they are so richly impregnated.

Tho' in a Jaundice Emetics are often indicated as highly proper, and afford a very speedy and instantaneous Relief, yet they are frequently found highly prejudicial; when, for Instance, the Disorder draws its Origin from violent Anger, Spasms of the Stomach, and a Cardialgia, or from a spasmodic Colic, as, also, in Cases where a Stone, lodg'd in the cystic Duct, excites a violent Uneasiness about the Præcordia. But, if the Propriety of Vomits should be indicated, it is expedient to use those of the milder Kind, such as that prepar'd of the Root of *Ipecacuanha*, with one Grain of emetic Tartar, which, when a bilious Sordes, lodging in the Duodenum, and closing up the Orifice of the Ductus Cholodochus, intercepts the Passage of the Bile, or when a tenacious, moveable, and not highly-concreted bilious Matter blocks up the hepatic Ducts, are of singular Use and Efficacy in evacuating it; for such is the Nature and Power of Emetics, as to exert their Influence and Operation on the biliary Ducts, which consist of highly nervous Coats, and by increasing their systaltic Motion, to produce a highly beneficial and salutary Excretion of the peccant Humours.

Drastic Purgatives are always observed to be prejudicial in a Jaundice, because they increase the Spasms, throw the Blood into violent Commotion, and impair the Strength. Hence, *Hippo-*

crates, in his Treatise *de Ratione Viæ in Acutis*, classes those, who labour under a Jaundice, among the Number of such as ought not to be purg'd: "For, says he, the Physician who treats them with Purgatives, will expose them to Danger, without doing them any manner of Service." And, in the fifth Section of his Book *de Affect.* when he gives the Cure of a Jaundice, he makes mention of Purgatives, in the following Words: "The external Part of the Body is to be soften'd by warm Baths, but the Intestines and Bladder are to be lubricated; for this Disorder happens, when the Bile, thrown into a preternatural Commotion, is lodg'd and deposited immediately under the Skin; and if the most ignorant Physician is but sufficiently acquainted with this Circumstance, he will not readily prove unsuccessful in the Cure of the Disease; for, by the slightest and most inconsiderable Circumstances, Diseases are long protracted, and render'd far more violent than they would have otherwise been: All Aliments, Portions, Sorbitions, or Medicines calculated for the Alleviation of Pain, may be safely us'd in this Disorder, provided they are exhibited with due Caution and Judgment. But such Medicines as either purge Bile or Phlegm, are dangerous, and the Prescription of them renders the Physician justly chargeable with Ignorance, and bad Management." From this celebrated Passage, I think it is sufficiently obvious, that, in a Jaundice, *Hippocrates* absolutely condemn'd the Use of such Medicines as deposited the Bile immediately under the Skin; and branded the Physicians, who us'd such a Practice, as Fools and Murderers. *Celsus Aurelianus*, in the fifth Chapter of his third Book, is no less explicit in condemning the Use of cholagogue Purgatives in a Jaundice, in the following Words: "The frequent Exhibition of such Medicines, as purge and carry off the Bile by Stool, is justly to be condemn'd in a Jaundice; since, by their means, the Thirst is increas'd, the Loathing of the Food augmented, the Strength impair'd, the Aliments taken corrupted, and all the Parts of the Body reduc'd to a worse State, by such a Farrago of Medicines; which Error we have frequently seen those guilty of, who, in a Jaundice, have prescribed the frequent and continued Use of Wormwood, Aloes, and Coloquintida."

Sudorifics, especially of a too hot and volatile Kind, which, by their expansive Sulphur, throw the Humours into a violent intestine Commotion, are by no means to be us'd in the Cure of a Jaundice, in which Disorder the viscid bilious Humours are far more properly evacuated thro' the Liver and Kidneys, than thro' the narrow subcutaneous Emunctories. Nor are we to be less cautious in the Use of too hot Baths in the Height of the Disorder, and under an immediate Paroxysm: Nor is it a hard Task to assign a sufficient Reason for this Piece of Practice; for, since, in a Jaundice, the cutaneous Emunctories are obstructed, the Patients do not easily sweat, the excessive Heat, by throwing the Blood into Commotions, and rendering the Humours more acrid, produces a Rupture of the Blood-vessels in other Parts. But tepid and temperate Baths, prepar'd of River-water, with Bran and Milk, may be safely us'd in Cases where there are violent Spasms about the Primæ Viæ; and Baths somewhat hotter, prepar'd with emollient and detergent Herbs, may be safely us'd, in order to remove the yellow Colour, when the Disease is on the decline, and the Emunctories of the Skin sufficiently open and pervious.

Tho' in the Cure of a Jaundice, bitter Medicines, prepar'd of the Root of Gentian, of Marsh-trefoil, the lesser Centaury, Wormwood, and Carduus Benedictus, are highly extol'd by various Authors; yet I can from my own Experience affirm, that they often do more Injury than Good; for, tho', by supplying the Defect of the Bile, they may seem to facilitate the Digestion and Excretion of the Aliments, yet, when they pass with the Chyle to the Mass of Blood, they often render the Disorder more obstinate, by increasing and accumulating the bilious Sordes. And, if at any time we find happy Effects produced by them in the Primæ Viæ, this is principally observed to happen, when, during a highly costive State of the Patient, they evacuate the impure Sordes by Stool; for neither the Bile, nor other bitter Substances, are friendly to the State and Condition of the vital Humours, but ought to be eliminated with the Fæces; for which Reason, Rhubarb is, in this Case, a highly efficacious Medicine; and the bitter Ingredients above-mention'd may, also, be used, when infused in Wine, and exhibited in Conjunction with some gentle Purgative, such as Rhubarb, Sena-leaves, Agaric, or tartareous Salts.

As in a Jaundice, both of the black and yellow Species, there is a great Impurity, or Cacoehymy of the Humours, mercurial Preparations, by some Physicians highly commended, prove greatly prejudicial. Thus, by small Doses of *Mercurius dulcis*, exhibited in the Form of Pills, I have seen a Swelling of the Gums, a violent Stench of the Mouth, Cardialgia, and a Loss of Appetite and Strength, produced; for Mercury, when mix'd with acid, and much more with alkaline Salts, assumes a highly convulsive and poisonous Quality.

Venefections are rather to be used with a preservative, than with a curative Intention; for a Redundance of Blood, by diminishing the Circulation of the Fluids, which in the Liver is always

always slowest, contributes greatly to the Generation of the Diseases peculiar to that Organ. Nor, when the Disease is present, and accompanied with a Plethora, are we absolutely to discharge Venesection; since this Practice is productive of very happy Effects, when the Disorder either draws its Origin from, or is supported and sustain'd by, a Suppression of the menstrual or hæmorrhoidal Discharge. Venesection is, also, beneficial, when Women, after the fiftieth Year of their Age, when the Menstrues cease, are seiz'd with a Jaundice.

As for Topics, we must observe, that, when applied to the Region of the Liver, they are of singular Efficacy in assisting the Circulation of the Blood and Humours through the hepatic Ducts, and, for that Reason, contribute greatly to the successful and expeditious Cure of a Jaundice. For this Purpose I have frequently, with excellent Success, prescrib'd Cataplasms, or Bags, prepar'd of the Herbs Wormwood, Horehound, and Mint, together with the Flowers of *Roman* and common Chamomile, boil'd in *Rhenish* Wine; or the *Emplastrum Saponatum* of *Barbette*, well camphorated, or simple Diachylon mix'd with Saffron.

In the Cure of a Jaundice, due Regard is, also, to be had to the Aliments; and we are carefully to observe, whether they are agreeable to the peculiar Constitution of the Patient; since all Aliments are not equally suited and adapted to Persons of all Habits. But this Caution is, in a particular manner, to be observ'd, with respect to the Patient's Drink; for some, with great Propriety and Success, use Whey, others Spring-water, either alone, or with Cream of Tartar and Sugar; others, *Rhenish* Wine, mix'd with Citron-juice; and others, Ale: Whilst, on the contrary, others reject these Liquors, and find them entirely disagreeable to them. But, with respect to Wines in general, I would have them exhibited in very small Quantities, because, in this Disorder, all spirituous Substances do more Injury than Good. Among Aliments, the Patient is, in a particular manner, to abstain from smok'd Flesh, Fish, Sweat-meats, things fried with Butter, and all leguminous Substances, except aqueous Fruits, such as Cherries, Currants, Cucumbers, and boil'd Prunes, which are generally safely us'd.

The first Approaches of this Disorder, or Relapses after a Cure, are most effectually prevented by Changes of Air, Travelling, and sufficient Exercise; to which may be join'd the liberal Use of some proper Liquor, and a calm and easy State of Mind. Thus, I have known Persons, who, by a prudent and due Use of all these, have remov'd an obstinate Jaundice; whereas it is confirm'd by daily Experience, that those who lead a sedentary Life, and are addicted to the Use of spirituous Liquors, or are sunk in long-continued Grief, are not only highly subject to the Jaundice, but, also, with great Difficulty, totally freed from it. We shall now put an End to this Article, by subjoining the Regimen in this Disorder recommended by *Celsus*, in the twenty-fourth Chapter of his third Book: "Thro' the whole Course of this Disorder, says he, the Patient is to use Exercise, Frictions, and Baths; he is, also, to have the Advantage of a warm and delicate Bed and Chamber, Sports, Mirth, and every other Circumstance that has a Tendency to exultate and cheer the Mind; for which Reason the Disorder seems to have been call'd *Morbus regius*. A Malagma, also, of a digestive Quality, applied to the Præcordia, is beneficial." *Frederic Hoffman*.

Methods of Cure, recommended by other Authors, are as follow.

In order to the Cure, if the Pulse be strong, and will bear it, Physicians commonly begin with Bleeding and Vomiting; after which, Purging takes place, especially with the cholagogue Medicines, and, during the whole Course, deobstruent or aperient Remedies ought to be prescrib'd, but with some Variation in regard to those call'd select and specific Remedies, some of which we shall insert from Authors of Reputation.

After Bleeding and Vomiting, *Riverius* gives the following purging Bolus:

Take of the Electuary of the Juice of Roses, and the Diaprunum solutivum, each three Drams; of the Powder of Rhubarb, one Dram; and of Saffron, half a Scruple: Mix all together.

Willis first orders the following Vomit, in the Use of which Regard is to be had to the Strength and Age of the Patient:

Take of the Sulphur of Antimony, seven Grains; of Scammony, impregnated with Sulphur, eight Grains; Cream of Tartar, half a Scruple: Mix, and reduce to a Powder, to be exhibited in one Spoonful of Panada.

Or,

Take of Gamboge, prepar'd, eight Grains; and of vitriolated Tartar, seven Grains: Reduce to a Powder for Use.

He then directs this Purge:

Take of the Electuary of the Juice of Roses, three Drams; of the Powder of Rhubarb, one Dram; of Salt of Wormwood, and Cream of Tartar, each half a Scruple; and Syrup of Rhubarb, a sufficient Quantity for making a Bolus.

For weaker Constitutions thus:

Take of the best Rhubarb, two Drams; of the Troches of Agaric, half a Dram; of Cinnamon, and Ginger, each half a Scruple: Infuse in White-wine, and Succory-water, each three Ounces; let the Infusion be continued for three Hours, in a close Vessel, the Liquor being kept warm all the while. To the Liquor, when strain'd, add of the Syrup of Rhubarb, one Ounce; and of the Water of Earth-worms, two Drams: Mix for a Potion.

Or,

Take of the Powder of Rhubarb, between half a Dram and one Dram; and of the Salt of Wormwood, half a Scruple: Mix, and reduce to a Powder.

Or,

Take of the Pilulæ Ruffi, one Scruple, and of the Extract of *Rudius*, half a Scruple: Mix, and make into four Pills, to be taken in the Mornings, observing a due Regimen at the same time, and repeating it after four or five Days.

Forms of deobstruent Apozems to be taken through the whole Course of Cure, sometimes mix'd with Purgatives:

Take of the Roots of sharp-pointed Dock, one Ounce; of the Tops of lesser Centaury, and Roman Wormwood, each two Pugils; of the Roots of Gentian, and Turmeric, each two Drams; and of yellow Sanders, one Dram: Boil in a Pint and an half of Spring-water to one Pint, adding, towards the End, six Drams of Sena-leaves; of Rhubarb, three Drams; of Agaric, one Dram and an half; of Coriander-seeds, two Drams; and of White-wine, two Drams: Boil in a close Vessel for two Hours; and let the strain'd Liquor be depurated by subsiding. The Dose is from four to six Ounces, with Syrup of Rhubarb, one Ounce; and Water of Earth-worms, three Drams, for a Potion, to be repeated three or four Days successively, or alternately. *Willis*.

After universal Evacuation, *Riverius* says, the Disease, if recent, may be overcome by using the following Prescription, for a Week together:

Take of the Roots of Madder, half an Ounce; of the Leaves of the greater Celandine, one Handful; of the Tops of *Pontic* Wormwood, and the lesser Centaury, each one Pugil; of Cinnamon, and Saffron, each half a Scruple: Infuse, for a Night, in eight Pints of White-wine. To the strain'd Liquor add of the Syrup of the Five aperient Roots, one Ounce. Let the Patient take it every Morning.

Or,

Take of the Whole of Celandine, one Handful; of the Flowers and Leaves of St. John's-wort, each half an Handful; of the Shavings of Ivory, and the Powder of Goose's Dung, each three Drams; and of Saffron, half a Dram. Let the Dung and Saffron be tied up in a Bag, and let the Whole be boil'd in equal Parts of Wormwood-water, and White-wine, to one Pint. Dissolve in the strain'd Liquor one Ounce of white Sugar, and mix up for three Doses, to be taken in the Morning.

Quercetan, *Fonseca*, and *Paré*, with many others, greatly extol Goose-dung gather'd in the Spring, and taken from half a Dram to a Dram. *Paré* gives two Drams, dissolv'd in White-wine, and strain'd for a Potion.

The Powder of Millepedes and Earth-worms are, likewise, recommended.

Steel, and some of its Preparations, are frequently directed with Advantage.

Gesner praises the Roots of the Stinging-nettle, bruised, to one Pound, with one Scruple of Saffron, to which he adds White-wine; and gives the clear express'd Tincture to four Ounces, for four or five Days.

The Chymists, not without Reason, recommend their vitriolated Tartar, Salt of Tartar, and Cream of Tartar, which they administer with a chalybeate Wine, for some Days. And, for the same Purpose, their tartarised *Elixir Proprietatis*, and the Tincture of Antimony.

Willis

Willis directs the following Electuary:

Take of the Conserve of *Roman* Wormwood, and the yellow Rinds of Oranges and Lemons, each two Ounces; of the Species *Diacurcumæ*, one Dram and an half; of the Powders of Ivory, yellow Sanders, and Aloes-wood, each half a Dram; of the Troches of Capers, one Dram; of the Powder of Rhubarb, half a Dram; of the Salt of Wormwood, two Drams; and of the Syrup of Succory with Rhubarb, a sufficient Quantity for making an Electuary. Let the Patient take the Bulk of a Chestnut, twice a Day; drinking, after each Dose, three Ounces of the following Julap:

Take of the Waters of the greater Celandine, Fumitory, Wormwood, and Elder-flowers, each five Ounces; of the compound Waters of Snails, and Earth-worms, each two Ounces; and of Sugar, half an Ounce: Mix all together.

The common Remedy is a Lemon, roasted under hot Embers, or before a gentle Fire, with Saffron inclosed in it, which, then, is steeped, or squeezed, into a Glass of White-wine.

Sylvius, in some Cases, prescribes a Decoction of Hemp-seed and Castile-soap; which he believes proper to blunt the Edge of that raging volatile Salt, which, according to his Hypothesis, renders the Bile, at these times, immiscible with the Mass of Blood.

Dioscorides advises the Juice and Decoction of the white Horehound: Others, the Decoctions of the Barberry, and Caper-bark.

Sennertus directs the Seeds of Columbine, which he gives in Powder, to half a Dram; with one Scruple of the Powder of Earth-worms, and half a Scruple of Saffron, in a Glass of Wine; as, also, a Decoction of red Vetches, with Asparagus-root, for common Drink.

When the Jaundice, saith *Sylvius*, succeeds the poisonous Bite of a Viper, or other venomous Creature, as is not unusual; Sudorifics are necessary, abounding with a volatile Salt: To which End conduce the volatile Salt of Hartshorn, Bezoar Mineral, diaphoretic Antimony, Treacle, and Preparations of Vipers.

Angenius says, that one Dram of Gum Ammoniac, dissolved in two or three Ounces of Oxymel or Hydromel, given four or five Days, or more, together, in the Morning fasting, cure the Jaundice to a Miracle.

The Decoction of Strawberry-leaves is accounted, likewise, a great Anti-icteric.

The Vulgar pretend to find Relief from swallowing five, seven, or nine Lice; for, without an odd Number, no good Effects are expected. Whatever Success they have, ought, certainly, to be ascribed to their volatile Salt; but, since many less ungrateful, and more powerful Remedies are discover'd, there seems to be no Reason why one so loathsome should be directed.

Some affirm, the best Cures have been perform'd by Acids; such as are the vitriolated or chalybeated Tartar, and the Sal Diureticum of *Bates's Pharmacopœia*.

Turner prefers the following Prescription, which, he says, he has tried successfully, when many others have failed; and believes it may be relied on, except where the Glandules of the Liver are so much constricted, that the Bile can no longer be secreted; or when the Duct, which empties itself into the Duodenum, is entirely obstructed by indissoluble Stones; whence proceed those excruciating Colics, with bilious Vomings, which attend this Disease.

Take of white *Venice* Soap, or pure *Castile* Soap, two Drams; of the Powder of Rhubarb, one Dram; of Saffron, cut small, half a Dram; and of the liquid Extract of Gentian, a sufficient Quantity, beat up into a Mass, of each Dram of which ten Pills are to be made; of which the Patient is to take four every six Hours, drinking, after each Dose, four Ounces of the following Apozem:

Take of the Roots of Madder, one Ounce; of sliced Turmeric, half an Ounce; of the Herb Celandine, with its Tops, St. John's-wort, the lesser Centaury, and white Horehound, each half an Handful: Boil them gently, in a sufficient Quantity of Spring-water, for two Pints of the strain'd Liquor; adding, towards the End, half a Pint of White-wine, to the strain'd Liquor, when depurated by subsiding: Add of the Syrup of the Five aperient Roots, one Ounce and an half, for an Apozem.

He acknowledges, however, to have more than once seen a stubborn Jaundice, which had frustrated the Endeavours, both of himself and others, at last overcome with the Juice of the green Leaves of the Artichok: This, he adds, is a harsh Medicine, working both upwards and downwards, and, consequently, improper for weak and worn-out Constitutions. The Dose is three Spoonfuls, with an equal Quantity of White-wine, twice a Day.

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But if the Tone of the Blood is broken by Intemperance, and the secretory Organs perverted in their Office, or the Liver indurated; whence a Dropsy ensuing upon the Jaundice, and the yellow Complexion changing for one more intensely deep; the Kidneys, also, no longer able to derive the Serum, unless in small Quantity, saturated with Bile, like an Elixivium in its Colour, through the urinary Passages, as formerly; the upper Parts of the Body wasted; with the lower, as the Belly, Thighs, and Legs, upon a Stretch; the Case is here, become desperate, and the Sick by no means to be relieved.

Upon removing the Obstructions, and recovering a former State of Health, the yellow Complexion, which accompanies this Disease, insensibly wastes, by the Help of the native Heat, through the Pores, in the same manner as black and blue Spots on the Skin, occasion'd by external Contusion and Extravasation. But, in order to hasten the Disappearance, *Hippocrates*, *Galen*, and others, propose Bathing, either in warm Water, or in the natural, nitrous, and sulphurous Baths: *Sylvius* prescribes Sudorifics, endued with a volatile Salt; which, he says, are profitable, whether Sweating follows or not: *Paulus*, and others, according to *Messurias*, prescribe Sulphur inwardly, to one Dram: But this is a hazardous Remedy, especially if taken by hectic Patients, and such as are of a hot and dry Temperament.

The Yellowness, remaining on the Tunica adnata of the Eye, is dispersed, by receiving into it, at convenient Intervals, the Fumes of Vinegar, after the manner of a Suffitus.

The black Jaundice, so called from the deeper Dye, is nearly allied to the former; or is, rather, the same Distemper degenerated, inducing a Scirrhus upon the Liver, and a Rottenness upon the rest of the Viscera; by these means, the Temperament of the Blood being spoiled, and a Dropsy coming on, the whole Constitution is broken, and the human Frame quickly destroy'd. However, the Cure may be attempted after the same manner with the former, or with some little Variation, as the Symptoms may happen to indicate.

Sydenham observes, that the yellow Jaundice sometimes succeeds the hysteric or hypochondriac Colic; and, in curing this Species, he is either for restraining entirely from Purgatives, or for exhibiting Rhubarb only, or some other gentle Lenitive; because the Purgings might raise a new Commotion of the Spirits, and, consequently, occasion a Return of the hysteric Symptoms: And the Jaundice, proceeding from this Cause, generally goes off, spontaneously, in a short time: But, if it continues long, or abates slowly, he proposes the following Apozem.

Take of the Root of Madder and Turmeric, each an Ounce; the Roots, together with the Leaves, of the greater Celandine, and the Tops of the lesser Centaury, of each an Handful: Boil them in equal Quantities of *Rhenish* Wine, and Spring-water, to a Quart: To which, when strain'd off, add two Ounces of the Syrup of the Five opening Roots: Mix them together for an Apozem, of which let the Patient take half a Pint warm, every Morning and Night, till the Cure is completed.

The *Edinburgh* Dispensatory prescribes this Decoction.

Take the Roots, together with the Leaves of the greater Celandine, the Roots of Turmeric and Madder, of each an Ounce; Spring-water, three Pints: Boil them together till there remains a Quart of the strain'd Liquor; to which, when cold, add the Juice of two hundred Millepedes, and two Ounces of the Syrup of the Five opening Roots; and mix them together.

But, says Dr. *Sydenham*, where the Jaundice is the original Disorder, besides the Alteratives just set down, it is convenient to exhibit such Medicines, once or twice, as evacuate the Bile by Stool, before taking the Apozem above prescribed; and once a Week afterwards, while it is continued.

Take of the Electuary of the Juice of Roses, two Drams; Rhubarb finely pulverized, half a Dram; Cream of Tartar, a Scruple; Syrup of Succory, with Rhubarb, enough to make them into a Bolus: To be taken betimes in the Morning, drinking after it a Glass of *Rhenish* Wine.

But, if the Disease still remains obstinate, he advises the Patient to the Use of some chalybeate Mineral Waters, such as *Tunbridge*, to be drunk every Morning, at the Fountain-head, till he recovers. *Turner* recommends the *Spa* Waters.

Sheeps-dung, infused in Beer, is a Remedy used, with Success, by the poorer Sort of People.

Etzmüller says, that Emetics, Chalybeates, and thin Bitters, perform the whole Cure: Universals being premised, make use of Stomachics, Chalybeates, (crude Filings of Steel, in the black Jaundice) Preparations of Rhubarb, Worms, Vipers; alkaline, volatile, and bitter Substances; Mineral Waters, and Gum Ammoniac.

I D I

Bleeding and Purging are very rarely used in this Distemper. The following are the best Specifics; the greater Celandine, Horehound, Flowers of St. John's-wort, Saffron, Broom, Wormwood, and Hempseed boiled in Milk, Turmeric-root, Madder, the Drinking of Urine; the Dungs of all Birds or Animals, Lice, the Stone in the Gall-bladder of an Ox: In general, it is advised, that, in the Cure of the Jaundice, anti-*ist*eric Medicines be continued for some considerable time; because it is a chronical and stubborn Distemper: And, as long as the Urine looks thin and splendid, so long the Use of them ought to be continued, till the Signs of Concoction appear, and the Urine becomes thick and turbid, and full of Sediment; for, when there are these Appearances, they afford great Hopes of a Recovery. When the Cure is effected, Friction and Bathing are proper, to take away the yellow Colour of the Skin.

But, as a Jaundice is always most dangerous, when either preceded by a Scirrhus of the Liver, or accompanied with one; this, if curable, may be removed by the following, or some such-like Preparations: We are, therefore, after the previous Use of such things as are effectual in a Jaundice, to foment the Right Hypochondrium with the following Decoction.

Take of the Leaves of Mallows, and Wormwood, together with the Flowers of Melilot, and Chamomile, each one Handful; of the Leaves of Baum, and Ground-pine, each half an Handful; and of the Seeds of Fenugreek, an Ounce and an half: Boil in four Pints of Water, adding, towards the End, two Pints of White-wine. Let the Side be, every Morning and Evening, fomented with Woollen Cloths, dipt in this Liquor, warm.

Then apply a Plaster of the *Diachylon cum Gummi*, and Melilot, malaxated with Oil of Worms, or the *Emplastrum de Cicuta cum Ammoniaco*, or the *Emplastrum de Ranis cum Mercurio triplicato*.

Decoctions of Sarsaparilla, and Guaiacum, drank warm in the Morning, for a long time, are, of all other Liquors, the most proper Drink; and if, by these Measures, the Disorder is not removed, we must have recourse to the internal Use of Mercurius dulcis. *Pitcar. Elem. Phys. Math.*

But, in the very worst Jaundices, provided there is no considerable Inflammation, nothing is esteem'd more effectual than Bath Waters.

Young Children, soon after their Birth, are subject to the Jaundice; which, generally, yields to any gentle Purgative, or any Medicine that increases the Contraction of the Intestines.

For this Disorder *Sylvius* recommends the following Remedy.

Take of *English* Saffron, and Bezoar Mineral, of each one Grain: Mix them together for a Powder.

An Infusion of the *Lens palustris*, in Wine, is esteem'd a Specific for a Jaundice.

ICTIS, *ἰκτίς*, in Zoology, imports either a Kite, or a Ferret.

ICTUS imports either a Stroke, or Pulsation, of the Artery; or a Blow; or a Sting from some venomous Insect. See VENENUM.

IDAM is explain'd, by *Rulandus*, *Pulmentum*.

IDEA. A Name for the *Victorialis*; spotted Ramsons. *Blancard*.

IDEACH. *Paracelsus* says, that Ideach occurs in every Plant; but it is not easy to determine what he means by it.

IDECHITRUM. A Term coin'd by *Paracelsus*; by which he means the first Man, the first Plant, or the first Creature of any Kind.

IDESTRUM, is another Term of *Paracelsus*, which it is not very easy to understand, or translate. The Passage in his *Fragmenta de Tartaro*, is thus: *Durities Tartari coagulationem suam ex salibus Mineræ habet. Sal in hac generatione occidens Elementale est & aqueum, Liquor humoralis, & Idestrum. Idestrum autem sine Composito non est. Compositum est de mineralibus per quatuor formas. Idestrum Conjunctio humoralis, naturalis, & mineralis.*

IDÆUS is another Term of *Paracelsus*: It is not very clear whether he means by it the Chaos, or the Creator, or both, in different Passages.

IDIOCRASIA, *ἰδιocrasia*. The same as IDIOSYNCRASIA; which see.

IDIOPATHIEIA, from *ἰδίω*, private, peculiar, and *πάθος*, an Affection.

This implies a primary and proper Affection of any Part: Thus the Head is affected idiopathically, in a Lethargy; and the Lungs, in a Pleurisy: But, when these Parts suffer by Consent, that is, by Disorders residing in other Parts, they are then said to suffer by Sympathy, *Sympathia*.

IDIOSYNCRASIA, *ἰδιοσυγκrasia*, from *ἰδίω*, peculiar, *σύν*, with, and *μιγνμι*, to mix.

J E R

Idiosyncrasy. Every Individual has a State of Health peculiar to himself; and as different Bodies seem to vary from each other, both with respect to the Solids and Fluids, tho' each may, at the same time, be in a sound Condition, this Peculiarity of Constitutions, by which they differ from other sound Bodies, is called Idiosyncrasy; and the Disorders arising from this Peculiarity are, sometimes, accounted incurable; because they are thought to be present, from the very first Formation of the Body.

Sydenham, treating of hysteric Disorders, remarks, that some Women, by reason of a certain Idiosyncrasy, or Peculiarity of Constitution, have so great an Aversion to hysteric Medicines, which are so generally serviceable in this Disease, that, instead of being reliev'd, they are injur'd thereby. In such, therefore, they are to be wholly omitted; for, as *Hippocrates* observes, it is fruitless to oppose the Tendency of Nature: And, in reality, this Idiosyncrasy, or Antipathy, is so remarkable, and so common, that, unless Regard be had to it, the Life of the Patient may be endanger'd; and this not only from hysteric Medicines, but from several others: In Confirmation whereof, I will, says he, at present, produce only a single Instance. Thus, some Women, in the Small Pox, cannot bear Diacodium, because it occasions Giddiness, Vomiting, and other hysteric Symptoms; whilst liquid Laudanum agrees with them very well. I experienced this, whilst I was writing this, in a young Lady, in the Small Pox, to whom I had given Diacodium on the sixth and seventh Day; and she was seized on both Nights with the above-mention'd Symptoms; and the Inflammation of the Pustules did not go on regularly; but, afterwards, upon using Laudanum, she was freed from these Symptoms, and the Swelling of the Face increased; the Pustules filled every Day, and the Restlessness and Anxiety (which made a kind of Paroxysm of the Small Pox) were wholly removed, every time this Opiate was exhibited; the Patient being strengthened and revived thereby.

IDIOTA, *ἰδιώτης*, from *ἰδίω*, private. This properly imports a private Man, who bears no Office in the Government. But, in the modern or figurative Acceptation, Persons concern'd in Government are not always exempt from this Appellation; for it implies a superlative Fool. *Hippocrates* particularly compliments unskilful Physicians with the Name of Idiot; I say, compliments, because a Person who practises Medicine without understanding it, or taking proper Pains in order to inform himself, satisfies his Honour and his Conscience very ill, and is something worse than a Fool.

IDIOTROPIA, *ἰδιωτροπία*. The same as IDIOSYNCRASIA; which see.

IDOS, *ἰδός*, the same as *ἰδός*, Sweat. It occurs in *Hippocrates's Coac. Prænot.*

IDOU MOULLI, H. M. P. 4. T. 18. p. 41. *Prunus fructu umbilicato, pyriformi, spinosa, racemosa.*

The Name of a tall Indian Tree, which grows seventy Feet high, and bears a sort of Plum. The Bark, Flowers, and Fruit, are esteem'd good against Madness, a Phrenitis, and other Disorders of the Head. A Decoction is made of the Bark in common Water, which is said to be powerfully effectual against the Jaundice, Dropsy, and other chronical Diseases. A Cataplasim, made of the Bark of the Root, powder'd together with red Sanders, by the Help of Womens Milk, has the Reputation of curing Venereal Bubos, if applied thereto.

IDROAGIRA. *Rulandus* explains this by *Aqua Alkali*.

JECORARIA VENA. The Hepatic Vein. See VENÆ.

JECTIGATIO. A Palpitation.

JECUIBA. *Margaav*. The Name of a Tree which grows in *Brasil*, the Wood of which is of a redish Brown, undulated with black, and excellent for Carving; but of no Use in Medicine.

JECUR. The Liver. See HEPAR.

The Livers of Animals, consider'd as Food, are esteem'd extremely unwholesome Aliments; for no Humours in the Body are so subject to Putrefaction, as Bile and Urine. But, as a Portion of Bile is always contain'd in the Liver, this disposes the Liver to a spontaneous Corruption: Hence it becomes acrimonious, and not only stimulates the Stomach and Intestines, but causes what is usually call'd a Surfeit, and supplies a very bad chylous Juice. Hence, probably, the *Jews* were forbid to eat the Entrails of Animals, among which is the Liver. But, of all others, the Livers of Fishes are the worst.

JEJUNIUM, *ἰεῦνία*, Fasting, or Abstinence. See AUSTRINENTIA.

JEJUNUM *Intestinum*, one of the small Intestines; which see fully described under the Article COELIA.

JENTACULUM, a Breakfast, or eating early in the Morning; which is reckon'd to be wholesome for those who are accusom'd to it, and even necessary for Children. *Castellus*. See ACRASTISMA.

JEQUI TINGUACU, a Species of the Saponiferous, or Soap-bearing Tree. *Ray Index*.

JERASOY, a sort of exotic Fruit, imperfectly described by *J. Baubine*, in *Ray's Historia Plantarum*, p. 1822. but with no Use or Virtues ascribed to it.

JESE-

I G N

JESEMINUM, the same as *Jasminum*. *Blancard*.

JETAIBA. The *Brasilian* Name for the *Locusta Arbor*, or Locust-tree. *Ray, H. P.*

JETICA. A Name by which the *Brasilians* call *Spanish Potatoes*.

JETICUCU. The *Brasilian* Name for *MECHOACAN*. *Ray, H. P. p. 1723.*

IETREION, ἰετρεῖον. See *IATREION*.

IGBUCAINI *Brasilianorum*. De Laet. A Tree growing in *Brasil*, and bearing a Fruit resembling a small Apple, full of small Kernels; and, as it is said, a present Remedy against a Dysentery. *Raii Hist. Plant.*

IGCIGA, & IGTAIGCICA. De Laet. *West India* Plants. The first of these is a Tree, which produces a kind of Mastich, of a very pleasant Smell. The Bark, bruised, yields a sort of white Liquor, which, being condensed, serves instead of Frankincense, and is effectual in Plaisters for cold Distempers. The other Species, called *Igtaigcica*, which, in the Language of the Country, signifies *Stony Mastich*, produces a Resin so hard and pellucid, that it may be almost taken for Glass; the Natives commonly use it to glaze their earthen Vessels. *Raii Hist. Plant.*

IGNAVIA, Idleness, Sloth, besides other ill Effects, is observ'd by *Celsus* to blunt the Forces of the Body, and accelerate old Age. *Celsus, Lib. 1. Cap. 1.*

IGNIS, πῦρ. Fire. In Pathology, there are many Distempers called by the Name of *Ignis*, but principally a *Causus*, or burning Fever: Which is very frequently termed πῦρ, *Ignis*, by *Hippocrates*, in his Books of *Epidemics*, of the *Glandules*, and of *Diseases*. The *Erysipelas* goes also by the Name of *Ignis sacer*, or *Ignis Sancti Antonii*; and *Herpes ferus*, or *Zona*, and *Ignis Persicus*. The *Impetigo*, also, is called *Ignis volaticus*, *volagrus*, and *sylvaticus*. *Ignis*, in a spagirical Sense, also bears different Significations; some take it for the Oil, which swims at the Top in Distillations. Mercury is called *Ignis*, by the Consent of all Philosophers. *Th. Chymic. Vol. 4. 756. 767. & alibi.* *Ignis algir* is a very strong Fire; *Ignis elementaris* is Sulphur, but not that in common Use; *Ignis sapientum* is hot Horse-dung; *Ignis extinctus* is extinguished Sulphur; *Ignis pruinus adeptus* is the Quintessence of Wine, or, as some will have it, of Vitriol, rectified with Tartar; *Ignis levis* is the Element of Fire, the *Æther*, *Jupiter argos*; *Ignis Gehenna* is a Name given by *Paracelsus* to a specific Corrosive.

The Chymists, in order to perform their Operations, use Fires of various Kinds; such as those of Sand, Filings of Iron, and Ashes, the Reverberatory Fire, the *Ignis Rotæ*, or Fire for Fusion, the Lamp Fire, the *Balneum Mariæ*, the Vapour-bath, and the Fire of Suppression. They, also, use several other Kinds of Heats, which may be classed among the Fires; such as Infolation, a Bath of Horse-dung, a Bath of the Skins of Grapes, and the Heat of Quick-lime.

The Fires or Baths of Sand, Filings of Iron and Ashes, are, when the Vessel, containing the Matter to be heated, has its Bottom and Sides totally surrounded with the Sand, the Filings of Iron, or the Ashes; that, by this means, the Vessel may be slowly and gradually heated.

The Reverberatory Fire is made in a Furnace, covered with a Dome, that, by this means, the Heat or Flame, which has always a Tendency to make its Escape at the superior Parts of the Furnace, may be reverberated, or beat back on the Vessel immediately expos'd to it.

To expose a Vessel to a naked Fire, or to distil with a naked Fire, is, when there is no intermediate Substance between the distilling Vessel and the Fire; or when it touches the Fire, or receives its Heat, without the Intervention of any other Body.

The *Ignis Rotæ*, or Fire for Fusion, is, when a Crucible, or any other Vessel, containing the Matter destin'd for Fusion, is surrounded with live Coals.

The Lamp Fire is, when any Matter, contained in a Glass Vessel, is render'd hot, by the equable Heat of a lighted Lamp. The Fire of a very hot Lamp is, also, used to soften the Necks of small Vessels, in order to have them hermetically sealed. The Lamp Fire, or that of a Candle, is, also, used to heat the Neck of a small Matras, or of any Glass Vessel, at the Part we intend to break it, by applying to it a Rag dipt in cold Water.

The *Balneum Mariæ* is, when the Alembic, containing the Matter to be heated, is placed in a Vessel full of Water, under which a Fire is put, that, by this means, the Water, becoming hot, may, in its turn, heat the Matter contained in the Alembic.

A Vapour-bath is, when a Vessel, containing any Matter, is heated by the Steam of hot Water.

The Fire of Suppression is, when, in order to distil *per Descensum*, the Fire is laid above the Matter; so that the Moisture forced from it, by means of the Heat, is precipitated to the Bottom of the Vessels: Or, when the Body of a Retort, or other Vessel, is cover'd over with Fire, this is called a Fire of Suppression.

Infolation is, when any Matter, design'd either to be put into Fermentation, or dried, is exposed to the Rays of the Sun.

I G N

The Bath of Horse-dung, called also the Horse's Belly, is, when a Vessel, containing any Matter, to be either digested or distill'd, is placed in a large Heap of Horse-dung.

A Bath of the Skins of Grapes, collected in large Quantities after the Vintage, may, like the Bath of Horse-dung, serve for Digestions or Distillations. But the principal Use made of these Skins, in warm Climates, where they become hotter than in such as are temperate, is, to penetrate and produce a Rust on Copper, for the Production of Verdegrise.

The Heat of Quick-lime, moistened, may serve for some Distillations. When, for Instance, after being mixed with Sal Ammoniac, it makes a very subtle Spirit distil from it, without the Assistance of any other Fire.

To make a Fire of the first Degree, two or three live Coals, capable of producing a moderate Heat, are only necessary.

For a Fire of the second Degree, 'tis necessary there should be four or five Coals, which communicate a Heat capable of heating the Vessels sensibly; but only to such a Degree, that the naked Hand may endure it for some time.

For a Fire of the third Degree, a large Coal Fire is necessary. And,

For a Fire of the fourth Degree, we must use Coals and Wood together, which produce a violent and intense Heat.

The Fires of Sand, Filings of Iron, and Ashes, have generally their Degrees, from the first to the third; but that of the Filings of Iron has a stronger Heat than the other, because the Filings easily become first hot, and then red. The Fire of Ashes is the most moderate, because they do not retain so great a Heat as the other Substances.

The Reverberatory Fire has its Degrees, from the first to the fourth; which is that generally raised to the greatest Violence.

The *Ignis Rotæ* is always a large Coal Fire, without any Degrees, because it only serves for Calcinations and Fusions; in which we only use Vessels of a porous Earth, and such as easily resist the strongest Fires.

A Vessel may receive different Degrees of Heat from a lighted Lamp; by either keeping it at a certain Distance, or gradually advancing it nearer the Vessel. But, when the Vessel is once heated, an equal Heat is always continued, because the Wick of the Lamp burns equally in that Species of small Furnace in which it is plac'd.

The *Balneum Mariæ*, and Vapour-bath, have, also, their Degrees; for, according as the Water of the Bath is more or less heated, the Distillation is more or less promoted. We may, therefore, call it the first Degree of the *Balneum Mariæ*, or Vapour-bath, when the Bath or Vapour are only moderately tepid, as they ought to be when any Matter is put in a Vessel, and exposed to them for the sake of Digestion. Their Heat of the second Degree is, when the Water of the Bath, and the Steam of the Water, are so hot, that one cannot hold his Hand in them; as they ought to be when a gentle Distillation is to be produced. Their third Degree of Heat is, when the Waters of both Baths boil, in order to hasten the Distillation.

The Fire of Suppression has, also, its Degrees; since sometimes warm Ashes are only used in order to excite a very mild and gentle Heat; and this is the first Degree. At other times a small Quantity of live Coal is mixed with the warm Ashes, and this is the second Degree; and at other times they place upon a thin Bed of Ashes a large Quantity of live Coal; and this is the third Degree of Heat, peculiar to the Fire of Suppression.

Infolation has, also, its Degrees, in proportion to the Heat of the Sun, to which the Substances are exposed. The best Infolation is that made in the Months of *July* and *August*, because the Sun has then more Force and Vigour than at other times.

The Bath of Horse-dung has, likewise, its Degrees, according to the Bulk of the Heap, or the Place in which 'tis lodg'd; for a large Heap of Dung communicates a proportionably greater Heat than one which is smaller. And if the Dung is lodg'd in a Stable, or any other close and hot Place, it will become much warmer, and produce more considerable Effects in Digestion and Distillation, than a Heap of equal Bulk, exposed to the free and open Air.

The Bath of Grape-skins has, also, its Degrees like that of the Bath of Horse-dung; but in hot Climates it communicates a far greater Heat than in temperate Countries.

The Heat of Quick-lime has, also, its Degrees; for, according as we desire it more or less strong, we expose it, in Powder, longer or shorter, to the open Air: And, when we have occasion for all its Heat, we use it as quick as we possibly can. *Lemery, Cours de Chymie.*

Besides the Degrees of Fire already mention'd, the later Chymists reckon a fifth, which is that whereby Gold is made to emit Fumes, and evaporate.

This was first discovered in the Year 1690. by Mr. *Tschirnhausen*, whose Burning-glass rendered every thing, even Gold itself, volatile.

I must apprise the Reader, that whenever any Degrees of Fire are mentioned, in Quotations from *Boerhaave*, they are supposed to be measured by a Thermometer, wherein the freezing Point is at about thirty-one, and the Degree sufficient to make Water boil at about two hundred and twelve.

IGNIS, *ἡ ἄνω*, the same as CALCINATIO; for which see CALX.

IGNIVORUS, *πυρρόδυνος*. See PYROPHAGUS.

IGNORANTIA, *ἀγνοία*. See AGNOIA.

IGNIS, IGNYE, *ἵγνυς, ἵγνυν*. The Ham, or Part behind the Knee in Latin *Paples*, *ἵγνυν τέμνειν*, 6 *Epid. Sect. 1. Aph. 5.* 1. to bleed in the Vein of the Ham. *Foefius*.

JIU *Brasiliensis* Marten. Piton. A pomiferous Tree, growing in *Brasil*; its Fruit, or Apple, is of the Size of an ordinary Hand-bill, of a dark-yellow Colour, and containing three oval Seeds, of the Size of those of a common Apple, covered with a dark-yellow Curicle, and of a whitish Substance. I find no Virtues ascribed to it. *Jiu* is, also, a Name for another very different Tree, the

Jiu prius, Piton. a bacciferous Tree, of *Brasil*, whose Fruit grows in Clusters, like Grapes, and, at a Distance, both for Figure and Colour, has the same Appearance, but is ligueous on the Inside, and good for nothing: They hang on the Tree throughout the Year, being of a lively Yellow in the Spring, and afterwards of a dark Vermilion-colour. Neither the Fruit, Leaves, nor Wood, of the Tree are of any Esteem, but all the medicinal Virtue lies in the hot and acrid Bark of the Root, which purges violently, and disturbs the Humours to such a Degree as renders it unsafe for vulgar Use. The Natives, and the robustest sort of Labourers among the *Portuguese*, pulverize the Bark, and take it in an indeterminate Quantity, about half a Pugil, against inveterate Obstructions. I seldom use it, says *Pisô*, and never but for want of a more gentle Medicine, and with Correctors, to diminish its cathartic Force. *Raii Hist. Plant.*

ILAPHS. The Name of a Simple, in *Myrepsus, Antidot. C. 412.* which is immediately explained to be what the *Latins* call *Bardana*; that is, the Burdock.

ILECH. A Term in *Paracelsus*, by which he seems to mean something which is First, or a Principle. *Ilech primum*, in *Rulandus*, is a Principle; *Ileas, Ileadus, Ilech, supranaturale, vel primum*, is a supercelestial Conjunction of the Stars, or an Union of the Stars of the Firmament with the Stars of interior things. *Ilech magnum* is the Ascendant, or Constellation of Medicine, which we receive, together with Medicine, in which it has its Residence, like the superior Stars in the Firmament, and the inferior in Man. *Ilech crudum* is a Composition of the First Matter of the three first Things, which are Mercury, Salt, and Sulphur; and, in this Sense, it is the same as the *Iliaster*, or *Iliadum*. *Rulandus, Castellus*.

ILEIDOS, in the spagirical Cant, the elementary Air, the *Ileoa Pheresbios*, (*ἰλεα πέρσιος*) or Life-bringing Morning, Heaven: In Man it is the Spirit, which pervades all the Members. *Rulandus, Johnson*.

ILEUM INTESTINUM. One of the small Intestines; for which see the Article COELIA.

ILEUS, *ἰλεὺς*. The same as ILIACA PASSIO; which see.

ILEX.

The Characters are;

The Leaves are rather indented than sinuated, as those of the common Oak; the Flowers are amentaceous, consisting of many Stamina, arising from a funnel-shaped Calyx. The Fruit is like that of the Oak.

Boerhaave mentions three Species of this Plant; which are,

1. *Ilex*; *aculeata*; *cocciglandifera*. C. B. P. 425. *Tourn. Ind.* 583. *Boerb. Ind. A. 2.* 177. *Ilex coccigera*. J. B. 1. 2. 106. Ger. 1159. *Emac.* 1342. *Raii Hist.* 2. 1392. *Ilex aquifolia* five *coccigera*. Park. Theat. 1391. THE SCARLET OAK.

The Produce of this Plant, used in Medicine, is the CHERMIS; which see.

2. *Ilex*; *folio rotundiori*; *mollis*; *modiceque sinuato*; five *Smilax Theophrasti*. C. B. P. 425. *Tourn. Infl.* 583. *Boerb. Ind. A. 2.* 177. *Smilax Arborea*. Offic. *Smilax Arcadum glandifera major*. Park. Theat. 1398. *Smilax Dalechampii*. J. B. 1. 2. 101. THE GREAT SCARLET OAK.

This is common in *Italy* and *Languedoc*. The Bark, Leaves, and Acorns, are used, which are esteem'd more atringent than those of the Oak.

3. *Ilex*; *oblongo*; *ferrato*, *folio*. C. B. P. 424. *Ilex arborea*. J. B. 1. 95. *Ilex, angustifolia*. Tab. Ic. 969. *Boerb. Ind. alt. Plant. Vol. 2.* p. 177.

ILEX BACCHIFERA. See AGRIFOLIUM.

ILIA (The Plural of ILE). The lateral Parts of the hypogastric Region, or Flanks.

ILIACA PASSIO. The Iliac Passion.

As to a Suffusion of the Blood, or Serum, within the Coats of the Intestines, by which an Inflammation, or painful Tumors, are excited, I grant it is sometimes so in reality, and have seen it with my own Eyes; but I observed, that it did not excite a Colic, but an Iliac Passion; because, upon opening several, who

died of a Twisting of the Guts, I found in most of them, that an Inflammation and Sphacelus of some Intestine was the Cause both of the Disease and Death: Nor is this surprising; for the great Solution or Continuity excited Spasms and Corrugations, so perpetual and violent, in the tender and exquisitely sensible Membrane, that the peristaltic Motion of the affected Intestine, by which the Excrements of the Belly are protruded towards the Anus, was stopped, and absolutely inverted. *Willis de Anima Brutorum*.

The large Intestines have the same Coats as the small, and, as the Feces ascend directly in the Colon, there is a Necessity for more robust, fleshy Fibres, to produce a stronger Contraction: Hence, if an Inflammation, or Sphacelus, (which I have often known) happens about the Beginning of the Colon, so that the fleshy Fibres, being injured, cannot perform the Contractions for the Elevation of the Excrements, they, stagnating towards the Ileum, induce an incurable Iliac Passion. *Willis Pharmaceutice Rationalis*.

A certain Woman seemed to labour under the Iliac Passion, accompanied with Hysterics; in the Summer she was seized with this Pain, and, in three Days time, it ended in a Twisting of the Intestines, of which she died the fourth: She had a scirrhus Tumor upon the Confines of the Colon, which was replete with very acute Ossicles, and, as it were, pricking and vellicating the Intestine: Wherefore, an Obstruction being made in the Intestine, and an Inflammation arising, she died in the utmost Agony, vomiting Excrements. *Hippolytus Bosius*.

I knew a Countryman, who died after long Contorsions, and continued Inflammations of the Abdomen; and, being opened, there was a large Fissure in the Intestine; out of which I saw fresh Grapes discharg'd, which he had just eaten. *Benevenius*.

In the Year 1668. a Man of Forry died at *Amsterdam*. He, for several Years, waited, as if he had been in a Consumption: At length, fourteen Days before his Death, he was seized with a Fever; after the tenth he voided no Excrements downwards, and on the eleventh he discharged them by his Mouth; three Days after, he expir'd. In the Opinion of every body, he was afflicted with a Twisting of the Intestines; and that really was his Disorder.

In the Dissection I found no Convolution of the Intestines, but observed, that they were more strictly compressed and inflamed about the Beginning of the Colon; and, when I had opened them by a cautious, gentle Incision, I discovered an Ulcer, which denied a Passage to the Excrements downwards; and consequently the Intestines, which were below it, were empty, and these above full of Excrements; the Stomach, being full of Ordure, was disagreeable both to the Sight and Smell. Having discovered the Cause of the Disease, I searched for the Origin of that Cause, when the *Pancreas* offered itself, half as long again, three Fingers-breadth broader, abundantly thicker, and fourteen Ounces heavier than usual, for it weighed nineteen Ounces, whereas the common Weight of a Man's is five, of a Horse's eleven: It was every-where full of scirrhus Glandules, as big as Pigeons Eggs. The Ileum, compressed by this bulky *Pancreas*, being first inflamed, then exulcerated, denied a Passage to the Excrements. *T. Kerkringii Observat. Anat.*

I formerly opened some Subjects, who died of the Iliac Passion, in whom the Omentum, and all the Intestines, were seized with a Sphacelus: The fetid Smell, arising from thence, would not permit me to examine thoroughly into the Cause of the Distemper. *Hildanus, Lib. de Gangrena, Cap. 4.*

A Clergyman, twenty-two Years old, was seized with Shivering and Heat, continual Vomirings of various Substances, which were, at last, cineritious and blackish, with an immoderate Pain in his whole Belly: His Hypochondria were very painful, and distended; he could lie on neither Side, had a continual Fever, and great Anxiety; he could bear Bleedings, but was not relieved by them; and his Belly was obstinately coitive: Hence there was a great Suspicion of the Iliac Passion. On the fifth Day he died suddenly: He vomited perpetually, and perceiv'd an excessive internal Heat. When dead, he swelled very much.

Upon opening the Body, his Colon was, in a manner, become black; his whole *Epipleon* putrid; a purulent Sanies was found at the Region of his Liver: The Whole was so fetid, that it was impossible to remove the Viscera. *Ballonius, L. 2. Epidem. & Ephem.*

The celebrated *Gni Patin* thinks, that this Disorder always proceeds from an inflammatory Disposition of the Ileum; and, therefore, that several are cured by opening a Vein, warm fomentations, *Semicupia* of warm Water, and emollient Clysters: He informed me, by Letter, that, about thirty Years before, this whole Intestine, of a certain Archbishop's Coachman, who died of the Iliac Passion, was corrupted, black, and gangrenous. *Blasius in Veslingii Syntagma Anatom.*

I have observed a mutual Entrance of the thin Intestines into each other, above a Finger's Length; especially in some who have died of the Iliac Passion. *Columbi Anat.*

Sometimes the Intestine enters into the Cavity of another, which is followed by an Obstruction, and Corruption of the Feces, succeeded by Death, as I have observ'd in an anatomical Dissection,

Dissection; for a young Man, afflicted with this Disorder, died without any Relief from Quicksilver; which, as it could not pass, I found near the Obstruction. *D. Pazarollus.*

I dissected a Woman, who died of the Iliac Passion: The superior Part of her Intestine was inserted into the inferior. *Plempii Fundam. Medic.*

The Intestine is sometimes folded, like the reduplicated Finger of a Glove, which absolutely obstructs the Passage of the Intestine; whence proceeds a Vomiting of the Fæces through the superior Parts. *Patin* says, this Reduplication is entirely fictitious, because he could never see it: But it occurred twice or thrice to *Walæus*, and myself, in dissecting dead Bodies. *Blasius in Vessing. Anat.*

Towards the latter End of the Year 1676. I dissected, in our Hospital, a Woman: Before her Death, she suffered severe Pains in her Belly, and Anxieties; had bloody Stools, and, at last, Vomiting. Upon opening her Abdomen, I found the *Ilium* plainly contracted in some Parts, and, as it were, strangulated with a Cord tied round it: One Part of it, four Fingers-breadth long, being very much contracted, and straitened, was wholly concealed in the Cavity of the next superior Part; and, by its Appearance, seemed to resemble such a real Intro-susception, as is described by *De le Boë Sylvius, Idea Prax. Med. Lib. 1. Cap. 15.* But internally, not only the Intestines, principally the Ileum, but the Stomach, also, were inflamed.

A poor Man died in the utmost Agony of the Distemper termed *Miserere Mei*: Upon opening him, I found the Ileum so twisted, in seven different Places, that there could not possibly be any Passage for Meat, Drink, or Fæces. *P. Barbet.*

Among the violent Disorders of the nervous System, which afflict the Mind with uneasy Sensations, and the Body with dangerous Symptoms, we may justly class racking Pains of the Intestines; the most considerable of which is that, which, seizing the *Ilium*, an Intestine of a highly tender and sensible Nature, is, for that Reason, called the *Iliac Passion*. *Hippocrates* called this Disorder, *the Pain of the Ilium*, because its Cause was seated there; whilst others of the Greek Authors styled it *Chordapsus*, because the Intestine affected was rendered tense, like a Chord. It is, by the Latin Writers, termed *Volvulus*; because, in Patients who die of it, the Intestines, in some measure, appear twisted with each other. *Celsus* calls it the *Disease of the small Intestines*.

It is an highly acute Pain of the small Intestines, easily degenerating into an Inflammation; and under which their peristaltic Motion is so violently inverted, that they throw up their Contents, and whatever Aliments are taken, by Vomit; whilst, at the same time, no Flatulences are discharged by the Anus, which is obstinately clos'd; in consequence of which, terrible and fatal Symptoms are often brought on.

The Progress and Symptoms of this Disorder happen in the following Manner. 'Tis preceded by a Constipation of the Belly, which is soon after succeeded by acute and violent Pains; accompanied with Inflation, Distention, and a hard Tumor in the umbilical Region. The Patient is so totally costive, that neither Flatulences nor Fæces can be discharged by the Anus: Afterwards the Flatulences discharge themselves by the Mouth; and, after a previous Nausea, a bilious and pituitous Matter is frequently vomited first of all. The Patient breathes with Difficulty; and whatever Aliments, or Drink, are taken, tho' they descend into the Stomach, are yet soon after thrown up, because they cannot pass thro' the Intestines; and the Matter thus vomited is a redish Sordes, not unlike Excrements, and frequently discharged with an highly fetid Smell. This Condition is succeeded by a Loss of Strength, a preternatural Heat, an hard and contracted Pulse, an immoderate Thirst, a Redness of the Urine, and a Difficulty in discharging it. When the Disorder has arrived at its worst State, the Patient is seized with a Hiccup, a Delirium, Convulsions, and a cold Sweat, whilst, in the mean time, violent Convulsions and Faintings frequently put an End to Life. *Hippocrates*, in his third Book *de Morbis*, accounts for this Disorder in the following Words: "The Intestines, says he, are dry'd, and, by the Heat of the Inflammation, so block'd up, that neither Flatulences nor Fæces can be discharg'd. But the Belly is hard, and the Patients sometimes vomit, first a mucous, then a bilious Matter; and, last of all, Excrements."

Celsus thus describes the Iliac Passion:

"There are two Diseases, which have their Seat within the very Intestines, one of which affects the small Intestine, the other the great one. The former of these Disorders is acute, the other may continue for a considerable time. *Diocles Carystius* calls the Disease of the small Intestine, *χρηδαψις*, *Chordapsus*, that of the other, *ίλεος*, *Ileos*; but the Generality of Moderns, I observe, give the Name of *ίλεος*, to the former, and call the other *κολικος*, *Colicus*. The first of these Disorders excites a Pain sometimes above the Navel, sometimes below it; in either Case, there is an Inflammation of the Part, with Constriction of the Belly, so as not to transmit the least Wind below. If the upper Parts are affected, the Patient vomits up his Food; if the lower, his very Excrements: Both Cases are to be feared, and the Danger is in-

creased, if what is thrown up by Vomiting, be bilious, of an ill Smell, of various Colours, or black. *Celsus, Lib. 4. Cap. 13.*

Aretæus thus describes it:

Children are much subject to the Iliac Passion, as being molested with Crudities; but the Disorder proves not fatal to them, both because they are accusom'd to it, and, also, on account of the Humidity of their Intestines, which renders them lubricous. Old Persons are not often visited with this Distemper, but very rarely escape, when seized with it. The Disorder is, also, more frequent in Summer, than in the Spring; in Autumn, than Winter; but the Summer affords more Instances of it, than both the other Seasons.

The Patient often sinks immediately under the gripping Torments of the *Ileos*; sometimes Pus is generated in the Part, and sometimes the Intestine becomes black and putresc'd, and falls off, and the Patient dies. When the Disease is more moderate, the Sick are sensible of a twisting Pain, a Redundance of Humidities in the Stomach, a general Faintness and Feebleness, with fruitless Eructations, which afford no Relief; a Rumbling in the Belly from Flatulences, which make their Way as far as the Anus, but are there intercepted, and prevented from being discharged.

If the *Ileos* be confirm'd, the Contents of the Viscera have their Course wholly diverted upwards, and Phlegm, Bile, and Flatulencies, are all discharged by Vomit, there is a Paleness of the Countenance, and a Coldness over all the Body, with much Pain, a Difficulty of Respiration, and a Thirst.

When the Disease proves mortal, the Patient falls into a cold Sweat, with a Difficulty of rendering his Urine, and a Constriction of the Anus, to such a Degree, as not to admit a thin Probe; he vomits up his Excrements; loses his Voice; and his Pulse, which at first was slow and small, at the Approach of Death becomes very quick, small, and weak. Such, then, are the Symptoms of this Disease, as incident to the small Intestines.

But the *Colon* is, also, subject to the same Disorder, which is attended with the like Symptoms, and bears the same Characteristics, tho' the Patient, in this Case, sometimes happens to recover, even when there is a Generation of Pus in the *Colon*, because of the fleshy Thickness of that Intestine. But, whereas, in such an Affection of the small Intestines, there is an acute and subtle Pain [*πίνθη ισχυρῆς*], when the Disease happens to be seated in the *Colon*, it is attended with a Redundance of Humidities, and a Sense of Weight on that Part; the Pain sometimes extends itself to the Ribs, so as to cause a Suspicion of a Pleurisy, and the more, because the Patient is not free from a Fever; sometimes it shifts from Place to Place under the spurious Ribs, so as to be thought a Pain of the Liver or Spleen, and thence descends again to the Iliac; for the *Colon* is a very large Intestine, and extends its Convolutions into every Part; sometimes the Pain fixes itself in the Os Sacrum, the Thighs, and the Cremaster Muscles. In Disorders of the *Colon*, there are more fruitless Vomiting, and what is discharg'd, is of a thin, bilious, Oil-like Substance. The *Colic* is less dangerous than the *Ileos*, in proportion as the *Colon* is more fleshy, thicker, and better provided against the Shock of a Disease, than the small Intestines. *Aretæus de Caus. & Sign. Acut. Morb. 2. Cap. 6.*

Cælius Aurelianus thus distinguishes the Iliac Passion from some other Disorders, which bear a Resemblance to it:

The Disease to which we have appropriated the Name of *Tormentum*, (*Cælius Aurelianus's* Term for the *Ileos*) differs from that gripping Disorder, the *Cœliac Passion*, in Degree; for the Patient, under the latter, is only affected with a slight Pain, sufficient to give him the Denomination of *Ventriculosus*, or *Tormentosus*. These Disorders are distinguish'd, also, by their Seats; for the *Cœliac Passion* is higher seated in the Belly, and under the Hypochondria, and frequently happens without Gripes of the Intestines. The *Ileos* has, also, its Marks to distinguish it from the Pains of the *Colon*; for this latter is an Affection principally of one Intestine, and one of those Diseases which the Greeks call *χρόνια*, chronic, affecting the Patient for a very long time; whereas the *Tormentum (Ileos)* is always an acute Disease, and affects all the Intestines. Some have given this Disorder the Name of *CHORDAPSUS*, (see that Word) because the Intestines are stretch'd out like Cords, and the ancient Greeks call'd the Intestines by the Name *χορδαι*, Cords. Some, as *Hippocrates*, *Praxagoras*, and *Euriphon* the *Cnidian*, make the *Chordapsus* to have one common Signification with *Tormentum*; others have made a Difference between them, particularly *Diocles*, in his Book of Diseases with their Causes and Cures. For the *Tormentum*, he says, is always attended with Eructations, and Discharges of the Wind below, without any Fæces; the Belly, also, under this Disorder, is not necessarily constricted, but admits Injections of Clysters, and the Pain, too, begins more from the upper Parts: But in the *Chordapsus*, if the Distemper be moderate, the Patient vomits up liquid Matter; if violent, stercoraceous; and will admit of no Injections by Clysters, but labours under a continual Constriction and Tension of the Belly, which is also elevated into a round Tumor: The lower Parts of the Intestines are the principal Seat of the Pain; and the Stomach, also, remains in a State of Immobility, or Inflexibility. *Cælius Aurelianus, Acut. Morb. Lib. 3. Cap. 17.*

Upon dissecting those who have died of this Disorder, the Ilium appears as it were twisted, and inflam'd, and sphacelated, and putrefied in the particular Part where the Seat of the Disorder resided; whilst, at the same time, above the Inflammation, a large Part of the Ilium free from this Misfortune is render'd so turgid with Flatulences, that it sometimes exceeds the Colon in Bulk.

The immediate Cause of this Disorder consists in an inverted peristaltic Motion of the nervous and muscular Coats of the Intestines, in consequence of the violent Coarctation and Constriction of the Ilium, by means of which nothing can be transmitted to the inferior Parts.

The Cause of this terrible and tormenting Disorder is generally an Hernia of the Scrotum, or Groin, when a Part of the Ilium is forced between the Processes of the Peritonæum, where they go off, in Men, to the Scrotum, and, in Women, where they penetrate the round Ligaments of the Uterus. Now it is certain, from anatomical Observations, that, whilst the Processes penetrate the Muscles of the Abdomen, they make this Perforation, as it were, in certain Angles or Degrees, in such a manner, that, when they have perforated one Muscle, they proceed a little between it and the following, before they penetrate the next, in order to pass farther. This is a Piece of wise Contrivance in Nature, to prevent the two easy Falling down of any thing from the Cavity of the Abdomen to the Region of the Scrotum, or the Groin. But if a Part of the Ilium should, with Violence, fall down into these Parts, and the Annuli, of which it consists, be too much dilated, it easily happens, especially when other Causes concur, that it cannot be reduced to its former Situation, but remains there, incarcerated, as it were, and absolutely prevents all Passage of its Contents.

In Women this is a Circumstance of a still more dangerous Nature; since the Processes are there narrower, and the prolapsed Part of the Intestine, of course, return'd with greater Difficulty. And, though in the Groins of some Women the Tumor is so small as hardly to equal a Bean in Bulk, yet it may lay a Foundation for this Disorder. In scrotal Hernias there is the less Danger of an Iliac Passion, in proportion as the prolapsed Portion of the Intestine is larger; for I have frequently seen a third Part of the Intestines fall down into the Scrotum, where they form'd a large Tumor, without any Danger of a succeeding Iliac Passion; because, in this Case, the Contents may pass more easily.

Besides Hernias, this violent Disorder is frequently produced by the natural Ingress of the Parts of the Ilium into each other; which is observable upon dissecting some of those who have died of this Disorder. And though some Authors absolutely deny this, and account it impossible; yet the contrary is sufficiently vouch'd by Experience and Observation. Thus the celebrated Peyer, in *Tratt. de Glandulis Intestinalibus*, when giving an Account of the Dissection of a Woman, who died of an Iliac Passion, uses the following Words: "Upon opening the Abdomen, we saw the Ilium plainly constricted, and, as it were, suffocated by a Ligature, for about four Inches; and, being much contracted, it lay entirely conceal'd within the Cavity of the adjacent superior Part of the Intestine." A Case of the like Nature is describ'd by Sylvius, in *Prax. Med. Lib. 1. Cap. 15.* And such a mutual Ingress of the Parts of the Ilium, in three different Parts, was, by Peyer, shewn in a Girl, who died of an Iliac Passion.

Though this Phenomenon may, at first, appear pretty hard to be accounted for, it is not, however, absolutely incomprehensible; for, if one Portion of the Ilium is violently constricted, it may be impetuously thrust into the adjacent Portion now distended with Flatulences. Such an Ingress may be the Cause, not only of an intense Pain, but also of an Inflammation, which must be produced by a Compression and Constriction of the Vessels of the Ilium, together with a Portion of the Mesentery. Besides, upon dissecting the Bodies of those who have died of this Disorder, these Parts have been found sphacelated. And *Lazarus Riverius*, in *Cent. 3. Obs. 26.* gives us a memorable Case, in which, upon dissecting a Body, he found the Extremity of the Ilium wrapt up, as it were, in three Convolutions, and compacted into one Mass, the Whole of which, together with the adjacent Part of the Mesentery, were affected with a Gangrene, whilst the other Intestines were very large, and surprisingly distended with Flatulences.

To such a mutual Ingress of the Parts of the Intestines, which produces the Iliac Passion, many other latent Causes may contribute; and the Observations of various Authors evince, that this Disorder may be produced by the gnawing of Worms contain'd in the Ilium, and found there after the Death of the Patient. Thus *Henricus ab Heer*, in *Obs. 24.* tells us, that he dissected a Girl, who died of an Epilepsy complicated with an Iliac Passion, and who, during her Life, vomited Worms; and that about the Extremity of the Ilium he found five Clusters of Worms, some of which crept from below upwards, and others from above downwards. And, in the *Miscell. Nat. Curios. Decur. 2. An. 5. Obs. 19.* we have an Account of a Woman, of thirty Years of Age, who, being seiz'd with the Iliac Passion, vomited, together

with liquid Excrements, sixteen round large Worms, and, at last, died in a cold Sweat. Upon dissecting her Body, in the Middle of the Intestinum Ilium the Membranes appear'd distended like a Cap, and there was a Perforation, as large as a green Fig, externally cover'd by a very slender Membrane on both Sides a Finger's-length of the Ilium; and two Inches of the Duodenum appear'd black, and corrupted by a Gangrene. This seems, also, to be assign'd as a Cause of the Disorder by *Lommius*, in *Obs. Med.* when he uses these Words: "When the Disorder has arriv'd at its worst State, Worms are now-and-then vomited up by the Patients."

Nor are we to exclude from the antecedent Causes, capable of producing the Iliac Passion, and inducing, not only a Stricture and Coarctation of the Intestines, but, also, of inverting their peristaltic Motion, Poisons, as also drastic Purgatives, and Emetics, especially if the Intestines labour under any previous Disorder. Thus *Calius Aurelianus*, who, after *Hippocrates*, wrote the best concerning this acute Disorder, among the Causes of it, reckons Poison, taken either by way of Aliment, or Drink; as also the Eating of Fungi. And *Alpinus*, *Med. Method.* makes mention of one *Gulandinus*, who, by taking Pills, and using half an Ounce of Hiera, fell into an Iliac Passion, which prov'd mortal. Nor, in such Cases, can I recommend the Use of Pills, in which Aloes is an Ingredient; since, after their Operation, they not only dry the Intestines, but, also, procure a greater Afflux of Blood to them; so that, according to my own Observation, they produce Coarctations of the Intestines here-and-there, which hinder the free Passage of the Excrements, and dispose to Colics.

Nor, as Causes of the Iliac Passion, are we to omit Obstructions of the Intestines, especially of the small Intestines, which are generally produced by dry and astringent Aliments, or such as are not sufficiently diluted with Moisture: Among such, Physicians have observ'd to be dry Bread, Biscuits, and Chestnuts, frequently eaten; as also Pears, Apples, and especially Quinces, unripe and four Fruits eaten in large Quantities, especially by such as lead a sedentary Life, are afflicted with Grief, drink little, or have the Strength and Tone of their Stomach and Intestines destroyed.

Besides, the large Intestines, obstructed by a long Retention of the Fæces, may produce this terrible Disorder, whilst they allow a Passage for nothing that is taken by the Mouth; especially when, from a Principle of Modesty, the Want of a proper Place, or any other Cause, the Inclination of going to Stool is suppressed. By this means a large Quantity of Excrements is accumulated, which afterwards so violently distends the Coats of the Intestines, that their elastic, systaltic, and expulsive Force is totally destroy'd. Thus, I remember, some Years ago, to have had an Account, from a skilful Physician, of a certain illustrious Person, who, upon a too long and violent Retention of the Fæces, was seiz'd with an Iliac Passion; and, upon opening his Body, after Death, the Colon was found full of Fæces, and in one Part ruptur'd, whilst about twenty Pound weight of Sordes was taken away. *Henricus ab Heer*, in his *Observat.* also, furnishes us with a memorable Case, in which, upon dissecting the Abdomen of a Person who died of the Iliac Passion, the Intestines burst spontaneously, and the Fæces were discharg'd with such Violence as to fly over the Cloaths of all the By-standers.

But, among all the antecedent Causes of an Iliac Passion, none has a more immediate and direct Tendency to produce it, than violent Anger, especially in those who previously labour under an Hernia, or any Disorder of the Intestines. Nor is it a difficult Task to account for this, since such is the Nature of this Passion, as to induce Spasms and Convulsions, especially on the nervous Parts, and easily to produce a Stagnation, and consequent Inflammation, by reason of a copious Afflux of Blood to the weaker Parts, among which we may justly reckon a Portion of the Intestines, prolapsed and fallen out of the Abdomen.

'Tis no easy Task to determine whether, according to the common Opinion, and the Doctrine of the Antients, Fæces, especially, in that Species of the Iliac Passion which arises from an incarcerated Hernia, or a mutual Ingress of the Parts of the Ilium, can be thrown up by the Mouth. This seems highly dubious, first, because the Fæces cannot slip back and regurgitate through the Valve of the Colon, with which the Entrance of the Ilium into the Cecum and Colon is furnished. Besides, 'tis not possible to conceive how the Fæces can penetrate, and make their Way, through a small Part of the Ilium, constricted and firmly closed up in an Hernia. I have no Intention totally to reject the Authorities of Physicians of approved Veracity in other Cases; but I shall only relate what I have, in the Course of my own Experience, observed in some Patients afflicted with this Disorder; which is, that they have vomited a Matter of a redish Colour, in external Appearance not unlike Fæces; but, when this Matter was applied to the Nostrils, it had no Stench, but rather smell'd of the Substances taken, and appear'd, as it were, bubbling with the Froth. I will not, however, deny, that when the Disorder neither proceeds from an incarcerated Hernia, nor a Convolution of the Intestines, but only from a spasmodic Stricture of the Ilium, when, at the same time, the large Intestines,

Intestines, the *Rectum*, and the *Colon*, labour under violent spasmodic Strictures, highly liquid Fæces, and, as others have observed, Clysters, may penetrate through the Valve of the *Colon*, to the superior Parts. But I recommend this Observation, with respect to vomiting the Fæces in an Iliac Passion, to the farther Scrutiny, and stricter Examination, of Physicians.

As for the Prognostics of this Disease, there are tolerable Hopes of Safety left, so long as there is no Inflammation; whilst Clysters are receiv'd, and return'd by Stool; whilst the Pains shift from Place to Place, and the Pain and Vomiting not continual, but seize at Intervals; and the Disorder is produced by an Obstruction of the Intestines, by means of the Fæces contained in them. But the Hopes of Recovery are still greater, if a laxative Medicine, taken by the Mouth, begins to operate by Stool. But if an Inflammation is already present, which may be known from the Fever, the Violence of the Gripes, the Suppression of the Urine, the hard and quick Pulse, the insatiable Thirst, the Tossing of the Body, the Loss of Strength, and the Coldness of the Extremities, small or no Hopes of a Recovery remain. A sudden and total Cessation of the Pain, accompanied with a great Loss of Strength, a weak Pulse, Deliriums, and a fetid Smell of the Mouth, are infallible Signs, that the Inflammation has degenerated into a Sphacelus. We must, also, observe, that this terrible Disorder, if in its Beginning proper Remedies are exhibited to prevent the Inflammation, and allay the Pain, may, sometimes, be protracted for two or three Weeks, before it is totally removed.

THE CURE.

In no Disease is a speedy Relief more necessary than in an Iliac Passion, since, without this, 'tis sometimes so violent as to destroy the strongest and most robust Man in three Days; and, as Time hurries away with Rapidity, it frequently carries along with it the seasonable Opportunity of relieving the Patient; for which Reason that practical Caution of *Hippocrates*, laid down in his first Book *de Morbis*, is, in this Case, to be carefully adverted to: "If, says he, any Physician was ever beneficial to a Patient in the Cure of a Disease, he must necessarily have employed his Skill at a proper Season." For which Reason; if in any Disorder, certainly in this, which is so dangerous and so quickly fatal, a skilful Physician is immediately to be called, whose principal Intention it ought to be, by proper Remedies, both of the internal and external Kind, to mitigate the acute and intense Pain which lays a sufficient Foundation for the Inflammation of the Parts, and the subsequent Death of the Patient.

The Man who is in the least conversant with the Works of the ancient Greek Physicians, will easily perceive, that they have been very full and accurate, not only in giving the History, but, also, the Cure, of the Disorders, and especially the Pains, incident to the nervous Parts; for this Reason, no Doubt, that in consequence of the excessive Heat of their Climate, and their intemperate Method of Life, Disorders of this Kind frequently recur'd, and called for the Assistance of the Physician. Let us, therefore, inquire into the Measures *Hippocrates* took for the Cure of this Disease. The Disorder itself he describes in his third Book *de Morbis*; and for the Cure of it orders a pretty long Suppository, prepar'd of Honey, and whose anterior Part is anointed with the Gall of a Bull, to be twice or thrice introduced into the *Anus*: "By which means, says he, the indurated Fæces about the *Intestinum Rectum* may be soften'd and brought away." After this he orders the Injection of a Clyster, and subjoins these truly memorable Words: "If these Measures prove ineffectual, a Smith's Bellows is to be introduced into the *Anus*, and, by its means, such a Quantity of Air injected as is sufficient to distend the Abdomen, and remove the Contraction of the Intestines." Then, removing the Bellows, he orders a Clyster to be injected, which consists not of hot Ingredients, but of such as resolve and colliquate the Fæces. "Then, says he, stopping up the *Anus* with a Piece of Sponge, in order to prevent the Discharge of the Clyster, let the Patient sit in warm Water." To which he adds, "If this Injection is retained, and again discharg'd, the Patient will be restor'd to Health." We shall here subjoin what this venerable Author farther says, with respect to the Method of treating this Disorder. "The Stomach, says he, is, with all Expedition, to be freed from all Sordes, and a proper Quantity of Blood taken from the Head, and those Parts of the Arms, where the Joints of the Elbows are, that, by this means, the Heat of the superior Belly may cease: Then all the Parts above the Diaphragm, except the Heart, are to be cool'd; whereas the inferior Parts are to be kept hot, the Patient is to be placed in a Bath of warm Water, and carefully anointed with Oil."

I am so far from disapproving of this Method of Cure used by *Hippocrates*, that I highly commend it; since it has a direct Tendency to procure an Evacuation by Stool, and to remove the spasmodic Stricture of the large Intestines, which prevents it; as, also, to prevent an Inflammation of the superior Parts, which must necessarily be productive of the greatest Danger. But, in the Cure of this Disorder, we think it incumbent on the Physician to direct his Views to its first Cause and Origin.

When, therefore, this Disorder draws its Origin from an incarcerated Hernia, which it frequently does, the Physician's first and principal Intention ought to be, after having soften'd the prolapsed Portion of the Intestine, to reduce it to its natural Place and Situation, if it should not spontaneously shrink up. That this may be done with more Ease and Expedition, Clysters must be injected every two Hours, in order to expel the Flatulences from the Abdomen. Then the Part affected is to be softened with pinguious and oleous Substances. For which Purpose, a Swine's Bladder, half full of Human or Dog's Grease, is to be applied to the Part affected, and the whole Abdomen is to be covered with the Omentum of some Animal, a Calf, for Instance; or, if that cannot be had, with a clean Linen Cloth, immersed in Rape-seed or Linseed-oil. Then the Patient is to be laid on his Back, with his Belly and Abdomen a little rais'd, and his Head somewhat lower; and the Surgeon, separating his Legs, is, with his Hand, anointed with Oil of Almonds, gently to attempt the gradual Reduction of the prolapsed Part of the Intestine into the Abdomen, but in such a manner, as not to fold, or any ways injure, the Intestine; for unless an *Hernia*, whether of the scrotal, the inguinal, or the crural Kind, is speedily reduced, an Inflammation readily happens, which terminates in a Sphacelus; for when the Blood, in consequence of a Portion of the *Ilium* being constricted, and, as it were, suffocated by the Rings of the Abdomen, cannot return through the compressed Blood-vessels, it becomes stagnant, and produces a Sphacelus.

The next Intention, of no less Importance, is, by proper Medicines, to allay and mitigate the violent Pains; for such is the Force and Influence of the Pain, as, by means of the mutual Consent between the nervous Parts, to excite all the terrible Symptoms with which this Disorder is attended, such as the Vomitings, Hiccups, continual Watchings, Uneasiness, Fever, Delirium, and Loss of Strength, as, also, the Stricture of the whole intestinal Canal, to the inferior Parts, and even the *Anus*. The Tremors, also, of the Extremities, and the Difficulty of discharging the Urine, depend upon this Circumstance. But when the Pain is allay'd, all these Symptoms are generally mitigated, and, in a proportionable Degree, remov'd. For which Reason, says *Hoffman*, in Cases of this Nature, I generally, with great Success, prescribe a Spoonful of gently spirituous Mint-water, which is, also, possessed of a mild anodyne Quality, to be taken every Hour, mix'd with ten or fifteen Drops of the anodyne Mineral Liquor, and two Drops of the *Laudanum Opiatum*, prepar'd according to the Directions of *Helmont*. And, externally, for allaying the Hiccups and Vomiting, I order a Plaster prepared of equal Quantities of old Venice Treacle, and Oil of Nutmeg, with an Addition of a sufficient Quantity of Oil of Mint and Camphire, to be applied to the epigastric Region. When the Vomiting and Hiccup are thus stop'd, gentle Laxatives of Manna, Cream of Tartar, and Oil of sweet Almonds, are the better retain'd, and, consequently, the more capable of producing happy Effects, when the Disorder proceeds from a long Retention of the Fæces, in the Flexures of the Intestines.

Nor, among the other Intentions of Cure, are we to neglect the Prevention of an Inflammation, by all possible means; because it degenerates, at last, into a Sphacelus, and destroys the Patient; for, according to the Generality of medicinal Observations, no Patient, labouring under an Iliac Passion, readily dies without a Sphacelus of the Intestines, whether arising from an *Hernia*, or a Convolution and Ingress of the Intestines into each other. In order, therefore, to prevent an Inflammation, besides Clysters, external Emollients, and Anodynes, internally exhibited, which not only alleviate the Spasms, but, also, the subsequent Inflammation, nothing is of greater Efficacy than Venesection, which *Hippocrates* orders with an Intention to prevent or alleviate the Fever: The ancient Physicians, for this Purpose, generally prescribed Phlebotomy in the Arm; but I have, with Success, used it in the Feet, especially in Women. Venesection is both the more useful and necessary, the greater Quantity of Blood is found in the Vessels; in which Case it is to be repeated as the State of the Patient shall require.

In order to check the febrile Heat and Inflammation, as depurated Nitre is superior to all other Medicines, so, in this Disease, 'tis of singular Use, if, for a Dose, six or eight Grains of it, mixed with the *Pulvis Marshionis*, adding sometimes a fourth Part of a Grain of Camphire, are, now-and-then, exhibited in a proper Vehicle. The antispasmodic nitrous Powder may, also, be exhibited, with Success, in an Emulsion prepar'd of sweet and bitter Almonds, Seeds of the white Poppy, and paregoric Waters. Externally, in order to prevent an Inflammation, the Parts affected are to be anointed with a Liniment, prepar'd of one Ounce of human Fat, and a Dram of Camphire.

If the Disorder should prove so obstinate as not to yield to any of these Measures, we are to have recourse to Quicksilver; which I have frequently used with Success, and indeed no Medicine is either more efficacious; or affords more speedy Relief; when there is a mutual Ingress of the Parts of the *Ilium* into each other. I know a great many Physicians are afraid of prescribing this Remedy; but their Fear is without any just Foundation;

tion; provided it is only exhibited at a proper time: Thus *Rhodius*, in *Observat. Medicin. Cent. 2. Obs. 80.* affirms, that a Patient, labouring under a violent Iliac Passion, was cured by five Ounces of Quicksilver, taken in solutive Honey of Roses. *Henricus ab Heer*, who, by means of this Medicine, restored many, after they were brought to the very Gates of Death, in his *Observat. Medicinal.* gives us an Instance of an Iliac Passion cured, and the Excrements forthwith discharged, by taking half a Pound of Quicksilver. *Zacutus Lusitanus*, as we learn from his *Prax. Adm. Lib. 2. Obs. 35.* with Success, prescribed a whole Pound of it, for a certain General, who laboured under this Disorder. And *Paré*, in *Oper. Chirurg. Lib. 20. Cap. 38.* affirms, that many, in the most imminent Danger of losing their Lives by the Iliac Passion, have been preserv'd, by taking several Pounds of Quicksilver in Water.

PRACTICAL CAUTIONS.

With respect to the Iliac Passion, we are carefully to remember, that it is highly unsafe to exhibit drastic Purgatives, in order to render the Body soluble; because they never fail to increase the Pains, Spasms, and all the other Symptoms: Nor is it expedient to use Clysters, prepar'd of excessively hot and carminative Substances: Much less are carminative and stomachic Essences, or medicated Wines, to be exhibited internally; since, tho' these may prove beneficial in a flatulent Colic, arising from a cold Cause, as the Antients used to speak, they are yet by no means to be exhibited, when the Disease is of the acute Kind, and all the Fluids in a violent and preternatural Motion.

But, when the Strength begins to fail, and Deliquiums to seize the Patient, mild Analeptics may be safely and advantageously used; such as those, for Instance, prepar'd of the Waters of black Cherries, Turkish Baum, Lilies of the Valleys, and Cinnamon, without Wine, or a Spoonful of generous Wine, may be now-and-then exhibited, with singular Advantage.

If the Patient is plethoric, Venesection is forthwith to be instituted, and, even, repeated, if the Case requires it. Great Regard is, also, to be had to the judicious Observation of the learned *Pascoli*, who in *Tom. 2.* uses the following Words: "When a Fever, and the Signs of an approaching Inflammation of the Viscera, are present, a Vein is to be forthwith open'd, rather in the inferior than in the superior Parts: Hence we almost always observe, that Leeches, especially when applied to the Intestinum Rectum, have been of singular Use in the Cure of an Iliac Passion; since the Blood, discharged from the hemorrhoidal Veins, relieves the Part affected, in the most immediate manner of all others." See HÆMORRHOIDES.

When the Use of Quicksilver is indicated as proper and necessary, it is previously to be depurated, washed, and passed through Leather: When thus prepar'd, it is not advisable to exhibit more than a Pound, or half a Pound; which is most commodiously taken in fat Broth. Immediately after it is taken, it is expedient the Patient should lie for some time on his Right Side, that it may the more quickly pass through the Right Orifice of the Stomach: Besides, if his Strength permits, he is to walk, or use Gestation, that it may the better reach the inferior Parts. But, when an Inflammation is already present, and the Strength much impair'd, we are to abstain from the Use of this Medicine, lest the By-standers, and such as are not capable of forming a right Judgment, should be of Opinion, that the Patient is destroy'd by this Remedy, which has the bad Fortune to be suspected almost by every one.

In this Disorder, great Hopes of Safety and Recovery are justly placed in Clysters, provided they are only used at proper times, and in due Quantities; for these, when the large Intestines are constricted by violent Spasms, by relaxing their Fibres, and rendering them flaccid, greatly allay the Inversion of the peristaltic Motion. It is most expedient, if the Strength of the Patient permits it, to inject a Clyster of warm Water, mixed with *Fernelius's* Syrup of Marshmallows, every two Hours, and that during the first Day of the Disorder, that, by this means, the Fæces may be render'd more liquid.

As for Topics, I cannot help approving of the Caution of *Celsus Aurelianus*, who advises us to abstain from heavy Cataplasms, which, by their Weight and Roughness, increase the Disorder, and the Pains with which it is accompanied; for sometimes the Inflation and Distention of the Abdomen are so great, that the Patient cannot bear it to be moderately touched with the Hand.

When the Anus, in consequence of the spasmodic Strictures, is so braced up, that it cannot admit a Clyster-pipe, much less the Nose of a Pair of Bellows, it is then expedient to apply to it a moderately warm Fomentation, and, with a small Pipe, to attempt the Injection of pure tepid Oil, that the spasmodically constricted Coats of the Intestinum Rectum, being, by this means, soften'd, may be, afterwards, capable of receiving a larger Quantity of Liquor.

When the Disease is upon the Decline, Baths are highly commodious, and may be, also, used in the first Days of the Disorder, when their Propriety is indicated by proper Circumstances; For these contribute greatly to the Termination of the Disease, and the Expulsion of the peccant Matter, by relaxing the Fibres:

Thus Baths were, by the Methodics, with great Success, recommended in the Decline of Diseases, as we learn from *Celsus Aurelianus*.

In order to mitigate the Pains which are, almost, the only Cause of so many violent Symptoms, and of the inverted peristaltic Motion of the Intestines, we are not to be afraid of using Opiates, provided they are exhibited in the Beginning of the Disease, when the Strength is as yet entire, a Plethora remov'd, and no Signs of a Sphacelus to be discover'd. With respect to the great Efficacy of Opiates in this Disorder, the Reader may consult the Sentiments of *Wedelius*, found in the *Miscell. Nat. Curios. Dec. 1. An. 2. Obs. 238.*

If the Iliac Passion proceeds from a crural Hernia, and a Sphacelus, and Death is apprehended, from an Impossibility of reducing the prolapsed Intestine; the last Recourse is Incision, which, if dexterously perform'd by a skilful Surgeon, in the Presence of a judicious Physician, is without any Danger, and may save the Patient from an otherwise unavoidable Death: But, in Cases of this Nature, it is absolutely necessary, the Operation should be perform'd in due time, and before the Signs of a present Sphacelus appear.

We must, also, observe, that the Iliac Passion is very ready to recur: Thus I have known some who have relapsed a second, and a third time, into it; but it is to be remarked, that those laboured under an Hernia. In order, therefore, to prevent this Misfortune, all possible Care is to be taken of the Hernia, which is to be retained with a Truss; or, if that cannot be commodiously done, it is to be carefully defended from every Degree of Cold. The Patient is, also, to abstain from all Aliments of a flatulent Quality; such as Summer Fruits, Pease, all the Species of Pot-herbs, and Onions, and Turneps: But he is, above all, to abstain from Substances of an astringent and drying Quality, that, by this means, his Body may be preserv'd sufficiently soluble; and, as I have found from Experience, that, in Patients labouring under an Hernia, nothing has a more immediate Tendency to excite the Iliac Passion, or produce a Relapse, than Anger, and drastic Purgatives, these are carefully to be avoided, as things of the most pernicious and fatal Consequence. *Frederic Hoffman*.

As I believe, with *Celsus*, that most Iliac Passions proceed, originally, from an Inflammation of the Intestine, Bleeding should seem to be the first Step necessary to a Cure, and this may be repeated in any Constitution capable of an Inflammation. And I have known the most powerful Cathartics, and these repeated, of no Effect, when administer'd previous to Bleeding, which have, however, operated very well, and produc'd plentiful Stools, immediately after a sufficient Quantity of Blood has been taken away; for when the Tension, and inflammatory Stricture of the Intestine, is remov'd by Bleeding, and the intercepted peristaltic Motion thereby restor'd, the Excrements are readily protruded towards the Anus, and expelled. I have, farther, observed very salutary Effects from anodyne, emollient, and gently discutient Fomentations, continued for a long time, and frequently repeated; and if, in the Intervals of the Fomentations, the warm Omentum, or Intestines, or both, of some Animal just killed, are applied, and kept perpetually on the Abdomen, our Endeavours for a Cure will be the more likely to succeed. Instead of these, I have sometimes known a warm Sheep-skin applied with very good Effect: But this must be stript off from the Animal with the utmost Expedition, the Moment it is kill'd, and laid to the Abdomen reeking hot; and another must be applied when that becomes cool, which usually happens in four, five, or six Hours.

An entire Interception of Urine, in the Iliac Passion, is esteem'd a most certain Prognostic of speedy Death. See *INTESTINA*.

Sydenham's Method of treating this Disorder is specified under the Article *DEPURATORIA FEBRIS*.

Celsus, considering the Disorder as an Inflammation, directs it to be treated accordingly, thus:

The Cure of the Ileus consists in Bleeding, and the Application of Cupping-glasses to many different Parts, tho' without scarifying every-where; for that will be sufficient, if done in two or three Places: In the rest, drawing away the Wind will be sufficient. We are then carefully to search out the Seat of the Disorder, which has, usually, a Tumor upon it. If it be situated above the Navel, Evacuation of the Belly would be useless: If it lies in the Parts below the Navel, it will be, sometimes, very proper, according to the Advice of *Erasistratus*, to evacuate by Stool; and, indeed, this kind of Remedy has been often found successful in those Parts. The Method of doing it is by administering a Clyster of strained Cremor of Ptisan, mixed with Honey and Oil, and no other Ingredient. If no Tumor appears, lay both your Hands on the Top of the Belly, and draw them down gently, by which means you will discover the Seat of the Disorder; for it will necessarily resist the Touch, and, from this Discovery, you will be able to judge, whether you are to evacuate the Belly, or not.

Common Remedies are, Applications of hot Cataplasms, from the Breasts as far as the Groins, and the Spine of the Back, often changing them: Strong Frictions of the Arms and Legs, or bathing the whole Body in hot Oil. If the Pain continues, three

or four Cyathi of hot Oil are to be forced into the Belly thro' the Anus: When, by such Methods, we have open'd a Vent for the Transmission of Wind, we may allow the Patient to take a moderate Draught of warm Mulfum; but, before this is effected, all manner of Drinking is very carefully to be avoided. If the Mulfum agrees with him, he may afterwards take some for-bile Liquor.

When the Pain and Fever are ceased, the Patient may be allow'd to eat pretty freely, tho' not of such Food as causes Inflation, or is hard of Digestion, for fear of injuring the Intestines, not yet sufficiently confirm'd; but his Drink is to be only pure Water; for whatever is vinous, or acid, is quite improper in this Disease. After this, all Bathing, Walking, Gestation, and other Motions of the Body, are to be avoided; for the Patient is subject to a Relapse, upon the least Occasion; and the Disease is sure to return after a Cold, or any Jactation, if the Intestines are not well confirm'd. *Celsus, Lib. 4. Cap. 13.*

ILIACA VASA. The Iliac Vessels, form'd by the Bifurcation of the *Aorta Descendens*, and *Vena Cava*.

ILIACUS MUSCULUS. This is a broad thick Muscle, lying on the whole Inside of the Os Ilium. It is fixed by fleshy Fibres to the internal Labium of the Crest of the Os Ilium, to that of the Slope between the two anterior Spines, to the Insides of these Spines, to the superior Half of the Inside of this Bone, and to the adjacent lateral Part of the Os Sacrum.

All these Fibres, contracting by degrees, run obliquely towards the lower Part of the Musculus Psoas, uniting with it, and being fixed, by a kind of Aponeurosis, to the Outside of its Tendon, all the Way to the little Trochanter. They cover the Head of the Os Femoris, and some of the lowest are inserted in that Bone, a little above, and behind the little Trochanter, and others a little lower down.

On the Outside of the lower Extremity of the Iliacus, there is sometimes a small separate Muscle fixed immediately under the anterior inferior Spine of the Os Ilium; from whence it runs obliquely downward, joins the Iliacus, and is inserted below the little Trochanter. It represents, in some measure, the Roman V, with the Pectineus; and might be reckoned an Iliacus minor, if the large Muscle had not sometimes an Insertion in the Side of the Eminence, called Ilio-pectinea.

The Iliacus and Psoas, thus united, pass under the Ligamentum Fallopii, over the Slope or Chanel, between the anterior inferior Spine of the Os Ilium, and Eminencia Ilio-pectinea, in a sort of ligamentary Capsula, very smooth and polished, that Part of it, which covers the Chanel, appearing like a Cartilage. *Winslow.*

ILIACUS Externus is a Name for the MUSCULUS PYRIFORMIS.

ILIADUS, *Iliadum, Iliaster, Ileidos* (they are, also, written with a Y for the first Letter). The First Matter of all Things, consisting of Mercury, Salt, and Sulphur; the Chaos: For there is nothing in the Nature of Things, which consists not of these three, and these are the three Principles of *Theophrastus* (*Paracelsus*) which are discovered by spagirical Analysis: We can find nothing but these three, which are each in each Element. *Iliaster*, in general, is the occult Virtue of Nature, whence all Things have their Increase, are nourished, multiply'd, and have their vegetable Growth. See *Paracels. de Meteor. Generation.* The *Iliaster* may be understood, as in the Elements, or in Man: In the Elements it is the vegetative Power or Virtue of Nature, which is fourfold, according to the Number of Elements: It is called *Chaos*. There are, also, four *Iliastri* concerned in the Longevity of Man. The first or native *Iliaster* is the Term of Life, or rather Life itself, or its Balsam in Man. The second or prepared *Iliaster* is the Term of Life, which we have from the Elements, or elementary Things, and Life itself. The third *Iliaster* is the prepared Term of Balsam, which we have from the Quintessence of Things. The fourth *Iliaster* is the Retirement of the Soul or Mind into another World, as in the Cases of *Enoch, Elias*, and others. Thus far is from *Rulandus* and *Johnson*, and seems for the most part to be taken out of *Paracelsus's* Books of *Long Life*, where he reckons three *Iliastri*, besides a Quintessence; one of them he calls *Sanctitum*, another *Paratetum*, and the third *Magnum*. According to the *Magnum*, which is the fourth of *Rulandus*, he calls Men *Henochediated*, or *Elixated*. *Iliadus* is, also, a mineral Spirit, which is contained in every Element, and is the Cause of all Diseases. *Iliadus*, also, is what makes a Crisis. From the *Iliadus* proceed all Diseases; and in the *Iliadus* all Things, all Simples, consist: To some it gives Health; to others Sickness. To the *Iliadus* are, also, ascribed three Ages: The first Age endures as long as it continues uncorrupted, tho' the Subject, or Person, be seventy Years of Age; for, as long as he remains free from Diseases, he is in the first Age of the *Iliadus*; but, as soon as the *Iliadus* is infected, he passes into its second Age: The third Age commences at the time of Death. In the first Age no Medicine is to be used, because it is not necessary; nor in the third, because it can administer no Relief; and therefore the second Age is the only Season in which Medicines can be proper. *Paracelsus de Tartar.*

VOL. II.

ILINGOS, ἰλιγγός, from ἰλιγγ, a Vortex. A Vertigo, in which all Objects appear to turn round, and the Eyes grow dim. See VERTIGO.

ILISCUS. Madnefs caused by Love, according to *Avicenna*.

Forestus.

ILIUM. See INNOMINATA OSSA.

ILLAMBONIS Collyrium. ἰλλάμβωνος κολλύριον. A Name for a Collyrium for Ulcers of the Eyes, mentioned by *Paulus Aegineta*, L. 3. C. 22. and 7. C. 16.

ILLECEBRA. A Name for the *Sedum*; *parvum*; *acre*; *Flore luteo*.

ILLEGITIMUS. Illegitimate. An Epithet for the spurious Ribs, and for certain anomalous Fevers, which are, also, call'd *spurious*.

ILLINCTUS. An *Eclegma*, or *Linctus*. *Blancard.*

ILLISIO. The same as ENTHIASIS; which see.

ILLITIO. Inunction, or the Anointing any Part.

ILLOS, ἰλλός. The Eye.

ILLOSIS, ἰλλωσις. A Distortion of the Eyes.

ILLOTA LANA. The same as *Lana Succida*. See LANA.

ILLOTI *Pisces* are Fish which smell and taste of Mud.

Celsus calls these *Virofi Pisces*.

ILLUTIO. The same as ALUSTIA; which see.

ILLUTATIO. Illutation. This is a Blemishing any Part of the Body with Mud, and renewing it, as it grows dry, with a View of heating, drying, and discussing. This is principally done with the Mud found at the Bottom of Mineral Springs.

ILLYS, ἰλλυς. A Person whose Eyes are distorted, or who squints.

ILYS, ἰλός. The Fæces of Wine. Hence the Epithet ἰλυδης, is applied to the Sediment in Stools, which resemble the Fæces of Wine; and to the *Hypostasis* in Urine, when like these *Fæces*.

IMAGINATIO. Imagination. The Fancy, once excited by the Appearance of an agreeable Object, presently raises Desire, and produces local Motion, either to approach or avoid the Object according to its different Circumstances.

If it be agreeable, the whole Bent of the Soul is to court and embrace it, earnestly endeavouring to be united to it. She is, as it were, expanded in Pleasure; while the animal Spirits, in a kind of Ovation, being carried within the Brain, are constantly exciting the most pleasing Ideas; and, acting in a lively Manner upon the nervous System, cause the Eyes and Countenance to sparkle, while the Hands and every Member exult for Joy: Besides, the Influence of the Brain affecting the Præcordia, by means of the Nerves, they propel the Blood with more Rapidity, and pour it with Vigour on every Part of the Body.

But, if the Object appear dreadful or grievous to the Imagination, the Soul, as it were, subsides, and is contracted. The Spirits seem to retire precipitately, and are sunk in Fear and Sadness. Hence the Countenance is dejected, and the Limbs enfeebled; and, the same Affection being carried by the Nerves from the Brain to the Præcordia, they are contracted, and restrain the Blood from its due Excursion. The Blood, being thus collected into one Place, produces an Heaviness and Oppression at the Heart; while the exterior Parts, being deprived of their usual Influx, languish, and are disordered. Such are the Effects of the Power of Imagination; Effects which are sometimes almost incredible, and which have been thought sufficient to restore and renovate, to ruin and destroy, the human Structure.

To the Virtue of the Mother's Fancy have been ascribed the Lincaments of the Embryo or Fœtus, with the Marks impress upon its Body, both at and after the Time of Conception. Transmutation or Ecstasy, Transformation of Body, Transplantation of Diseases, the strange Alterations of Bodies by the Virtue, Reliques, and the Invocation of Saints, are all imputed to this Power of the Imagination. In a Word, Sickness and Health, Recovery, and Death itself, are within the Limits of its Sway. But it may be proper to premise, that, by the Power of Imagination or Fancy, we do not mean, that this Faculty, as an immediate Efficient, by a direct Property of itself, produces any Effect; but mediately, by the Interposition of the Blood and nervous Fluid, influenced by Desire.

Among common Accidents, standing on a Precipice, or going along a narrow Bridge, and looking down from us, are subject to make us tremble and grow giddy. The seeing a Person eat some austere or crabbed Fruit, will cause a kind of Stupor in the Teeth; or the beholding another feeding on Delicacies, of which we are fond, occasions a real Flux of Saliva; or, according to the common Expression, makes our Chops water. The Sight of a Person in Affliction, in Misery, or in Torture, will make the Compassionate fancy, that he feels a Pain like that of the unhappy Sufferer. The longing Desire of suckling a destitute Infant has been known to have produced Milk in the Breast of an old Woman, as is said. And nothing is more frequent, than for a grating, jarring Noise to set the Teeth on edge; or the Sight of another Yawning, to occasion in us the same Action.

Thus, also, the Imagination, upon Joy, causes a pleasant and serene Countenance; of any thing shameful, produces Blushing. But more remarkable have been the Effects of the dreadful Apprehensions of an approaching Execution, as may appear by the following Relations.

Schenkius, Lib. 1. tells us, that *Don Diego Ofarius*, a noble Spaniard, being in Love with a young Lady of the Court, obtain'd of her a private Meeting, under a Grove in the King's Gardens, which was a capital Crime. By the unfortunate Barking of a little Dog, they were discovered, and the young Nobleman was seiz'd, imprison'd, and condemn'd to die. After hearing his Sentence, in one and the same Night, he was, in Appearance, both young and old, his Hair being turned grey, as in hoary Age. The Gaoler related the Accident to the King as a Prodigy, who was pleas'd to pardon him, saying, he had been sufficiently punish'd for his Fault.

The same Author informs us, that a young Nobleman of the Emperor's Court had violated a Lady's Chastity, though, by her small Resistance, she seem'd not altogether reluctant. He was imprison'd, and condemn'd to lose his Head the next Day. Being brought into the Imperial Presence, before the Execution of his Sentence, he was known to none; the Beauty of his Face being vanish'd, his Countenance like the Countenance of a Corpse, and his Hair and Beard entirely grey. On so wonderful an Alteration, a Counterfeit was reasonably suspected; but after a strict Examination, no Imposture appearing, the Emperor was mov'd to Pity, and pardon'd the Criminal.

Mr. Boyle, in his Experimental Philosophy, relates, that, when he was in *Ireland*, an Irish Captain, coming with some of his Followers, to surrender to Lord *Broghil*, was casually intercepted by a Party of the *English*, his Lordship being then absent. Upon this Misfortune, so prodigious was the Captain's Terror of Death, that, before Lord *Broghil's* Return, his Hair changed its Colour in a peculiar manner; some of his Locks, which were turned perfectly white, being interspersed with the rest, which retained their usual redish Hue.

The bare Imagination of a purging Potion has, I am credibly inform'd, produced Stools, like those call'd Physical. With regard to Vomiting, *Turner* says, he, one Morning, visited a young Gentleman, who had Occasion for several Vomits, not of the mildest Sort. Being provided with plain Posset-drink, he desired me, says he, to shew him his Bolus. I had no sooner open'd it, than he began to heave and retch extremely; then I carry'd the Bolus out of the Room, till he had recovered himself. He took a Draught of Posset-drink, which was soon followed by a second; neither of them returning, the Bolus was again presented, upon the first Glance of which, he began to vomit plentifully, so continuing, till I made him believe, that it was again removed out of the Room. Having drank more Posset-drinks, I unexpectedly pulled the Bolus out of my Pocket, which again had the same Effect. He said, he had thus vomited with several of his last Boluses, and found as much Advantage, and as strong an Operation, as from the first, which he had taken into his Stomach. So surprising was this Gentleman's Idiosyncrasy, though in perfect Health, if a Bolus was mentioned, or if he accidentally thought on it, he would fall a vomiting.

The Fancy, says *Picinus*, in his *Traët. de Viribus Imag.* by causing a Motion of the Humours and Spirits, is capable of producing almost every Disease: For, as it has Power to determine these Humours to any Part, it is able to cause the Indisposition incident to the Part. And some have been observ'd to have contracted the Small-pox or Plague, by Fear, or Force of Imagination, some putrid Humours, with a pestilent Atmosphere, predisposing. A condemn'd Malefactor, the same Author takes notice, being carry'd out to Execution, as he believed, having his Cap pulled over his Eyes, and a wet Cloth struck hastily about his Neck, dropt down dead, imagining he was beheaded. And there are several surprising Instances of the Force of Imagination in Hypochondriacs.

We shall now proceed to take notice of some monstrous, or marked Births, occasion'd by the strong Imagination, or disappointed Longings, of the Mother; which have had Power not only to divert and disturb the plastic or formative Faculty, but to stamp its Characters, to dismember and dislocate, and to make large Wounds in the Fœtus, long after Conception, when it has been completely formed.

The Desire, says *Hippocrates*, of the pregnant Woman is capable of marking the tender Infant with the Thing desired. And *St. Jerom*, in his Lectures upon *Genesis*, says, that a Lady having brought forth a Child of an *Ethiopic* Complexion, was in Danger of suffering as an Adulteress; from which Punishment she was deliver'd by *Hippocrates*, who wisely imputed this Event to a Picture resembling the Child exactly, and which he found she had been often very intently viewing. To the same Cause *Helliodorus* ascribes the Whiteness of *Chariclea*, who was born of *Ethiopian* Parents.

Soranus, as *St. Austin* observes, informs us, that, however deform'd and ugly the Tyrant *Dionysius* was, he would always have a beautiful Picture plac'd before his Wife in the Bed-chamber. *Galen*, in his *Lib. de Theriac. ad Pison. C. 14.* says, that the Sight

of a Picture is sufficient to change the Fœtus into the same Likeness. And the Patriarch, in *Genesis, Chap. xxx.* by placing the streaked Rods before the Cattle, at the Time of their Conjunction, shew'd himself no Stranger to these Effects.

Hesiod, Lib. 2. de Op. & Dieb. exhorts his Friends to abstain from Embraces after their Return from Funerals, or thinking of any Calamity, which has befallen them; lest the sorrowful Idea be transmitted to the Conception, and the tender Fœtus marked with some frightful Character.

Pet. Messias, in his *Lib. Lest. var. C. 7.* reports from *M. Damasc.* that a Girl was born all over hairy, from the Mother's viewing the Picture of *St. John Baptist*, drawn in his hairy Vesture hanging by her Bed-side. The like Case is taken notice of by *Schenkius*, and *Amb. Paré*.

Bartholine, in his *Hist. Anat. Cent. 3.* says, that a Woman, big with Child, being exceedingly frightened by a Cat, was deliver'd of a well-shaped Child, but with an Head like that of a Cat.

Gulielm. Paradis. in his History of *Savoy, Epilog. ad Cap. 46.* declares, that a Niece of Pope *Nicolas III.* of the Family of the *Ursini*, had a Birth covered with Hair, with the Claws of Bears, instead of Fingers and Toes, which she ascribed to her looking on the Picture of that Creature, which was every-where represented in the Dwellings of that Family. Upon this Event, his Holiness gave Order for destroying all the Pictures of Bears throughout the City of *Rome*.

On July 18. 1610. (says the same Author, in his *Additum. ad Donat. per Host. Lib. 7. C. 3.*) a Boy was born at *Prague*, whose Liver, Intestines, Stomach, Spleen, with Part of the Mesentery, hung out all naked below his Navel; he lived but a few Hours. The Mother, upon Inquiry, said, that, three Months before her Delivery, she was forced by some Soldiers to be present at the killing of a Calf; at the opening of which, she felt an extraordinary Motion in herself, when she saw the Bowels tumbling from the Belly. About the same Time and Place, another Boy was born, with his Fore-skin cut and inverted. Three Weeks before, the Mother had listened attentively to one who was describing the Manner of the Jewish Circumcision.

Ludovicus Vives, in his Comment upon *St. Austin's City of God, Lib. 13. C. 25.* mentions a loose fellow of *Brabant*, who, having personated the Devil in a Play, went home in his Habit, and would needs enjoy his Wife, saying, he would beget on her a young Devil. The Woman conceived, and afterwards brought forth a Child of the same diabolical Figure, in which the Man was dressed.

Schenkius, in his *Obs. Med.* tells of a Woman very big, who, conversing with her Neighbours, told them, that she reckon'd to the Time of the *Epiphany*, or the Festival of Three Kings. One of them wish'd she might bring forth Three Kings; and she merrily answer'd, With all her Heart; and, at the time, she bore three Sons, one of them black, as the *Ethiopian* Kings are painted. This Relation is confirm'd by *Cornel. Gemma*, in *Cosmocrit. Lib. 1. Cap. 6.* who reports of another, near her Time, who being pursued by her Husband, with his drawn Sword, threatening to cut her over the Forehead, she, from the Fright, soon fell in Travail, and was deliver'd of an Infant with a large Wound on its Forehead, of which the Bleeding could not be stop't, and the Child presently dy'd.

Gulielmus Fabricius tells us of a Woman at *Bern* in *Switzerland*, who, being big with Child, and quarrelling with another, fell into a violent Passion, after which, falling into Labour, she was brought to-bed of a Daughter, of a courageous and heroic Mind, but her Feet and Hands contracted, as if ready to fight, and her whole Body in a continual Motion; so that she walk'd, as it were, dancing and trembling, like one in the Height of Anger.

A young lusty Woman, big with Child, was much frightened by a Person falling down by her, in a Fit of an Epilepsy. At the Expiration of her Time, she was deliver'd of a Son, who was soon after seiz'd with epileptic Paroxysms, which carry'd him off before he was a Year old. This Author adds, that the Cause may be ascribed to the Force of the Mother's Imagination, at the Time of the Fright, communicated to the Brain of the Infant.

The Case of a Man born without Arms, and living to a great Age, which was occasion'd by his Mother's Surprise at the Sight of a Beggar in the same Condition, is related in *Cent. 6. Obs. 66.* by the same Author. And I knew, says *Turner*, a Lady, who, being with Child, was fright'd at the unexpected View of a Beggar's stump Arm upon her Coach-door, and was deliver'd of a Child wanting one of its Hands. The same *Fabricius* gives an Account of an Hydrocephalus contract'd by the Mother's Imagination: Of the Infant's Head pierc'd through, by reason of the Mother's receiving a Fright: Of the Small-pox this way communicated: Of a Child born with the Leg broken, or distort'd, by the Mother's looking on a Crucifix, and viewing the broken Limbs of one of the Malefactors on the Side of our Saviour: Of a Female Child being born with a *Prolapsus Uteri & Vesicæ*, by the Mother's beholding a poor Woman under that Misfortune.

Picinus, de Virib. Imaginationis, tells us of a Girl born without an Head, but complete in the rest of her Body: The Likeness of a Shell-fish was join'd to her Neck, having two Valves, which shut and open'd, and by which, from a Spoon, she took her Nourishment.

rishment. This was occasioned by the Mother's longing for Mussels in the Market, which she could not procure. This Monster lived eleven Years, but, happening, in an angry Mood, strongly to bite the Spoon with which she was fed, and breaking those testaceous Valves, she dy'd quickly after.

The Case related by *Sebastian Munster*, in his *Cosmograph. Lib. 3.* of two Children born growing together by the Forehead, occasioned by two Persons wantonly striking their Heads together behind the Mother, seems less strange to those, who have seen, in *London*, two Girls, brought from *Germany*, conjoined about the Loins and Buttocks, with one common Anus and Pudendum.

In the *Zodiacus Medico-Gallicus, pro Mens. Nov. & Decemb. 1682.* we are told of a pregnant *Burgundian* Woman, who, being often intent upon looking up to the Images of two Angels, in the Church, with their Arms and Legs across each other, was, on *August 24.* delivered of two Girls, deprived of Life, on account of the difficult Birth, with their Bodies joined in the same manner.

Ambrose Paré says, that in 1517. a Child was born with its Face like that of a Frog, which was occasioned by the Mother's holding that Creature in her Hand, to allay the Heat of a Fever, about the Time of her Conception.

A Gentlewoman with Child, says *Turner*, being cut for the Reposition of an inguinal Rupture, was delivered of the Infant with a large Wound on the same Place, and the Scar continued when he was a Man.

Fienus records a Woman at *Antwerp*, who, in Countenance and Gesture, resembled an Ape; her Mother, when pregnant, being used to play with a Creature of that kind. He likewise informs us of a Lizard, that frightened a Woman with Child, by leaping into her Bosom; and she brought forth an Infant, with a fleshy Excrescence on the Breast, exactly resembling the Lizard, with its Head fixed in the Child's Flesh, and the rest of the Body hanging out.

Schenkius takes notice of a Letter sent him by *Jacobus Suterus*, where he tells him, that his Wife being deny'd a certain Joint of Meat by a Butcher, she bled at the Nose, and with her Finger wiped the Blood off her Lip, and was delivered of a Child wanting the upper Lip.

Dr. Cyprianus, in *Phil. Transf. abridged, Vol. 3. p. 222.* gives the following Case: A Lady was delivered of a Girl, with a Wound in her Breast, above four Fingers long, and penetrating to the Musculi Intercoastales, being an Inch broad, and hollow under the Flesh about the Wound: There was, also, a Contusion at the lower Part of the Wound, which, being treated with Suppuratives, came to an Head, was opened, and healed with the Wound. The Birth was easy, and, consequently, the Child received no Harm in it. But, about two Months before, the Mother, being gone to Bed, heard a Report, that a Man had murdered his Wife by wounding her in the Breast with a Knife; at which Relation, it was observed, that she changed Countenance, and seemed concerned.

Mr. Boyle acquaints us, that an ingenious Physician, being call'd to a young Lady, who, he believed, only fancy'd herself Sick, scrupled to give her Physic; and advised her Friends to divert her by little Journeys of Pleasure. In one of these, going to *St. Winifred's Well*, this Lady, who was a Catholic, continued some time in the Water, to perform her Devotions, and attentively fixed her Eyes upon the red Pebbles under the Water. A while after, she was delivered of a Child, whose Skin was copiously speckled with Spots of the Colour and Size of those Stones; which Marks the Child ever retained.

A Kinswoman of mine, says *Sir Kenelm Digby*, in his Treatise of Bodies, being fond of wearing Patches, I used to tell her, in Jest, that her next Child would be marked with a great black Spot in the Middle of its Forehead. This Apprehension was so strong in her Imagination, at the time she proved with Child, that her Daughter was born exactly as the Mother imagined.

Horslius recites several Cases, in which he found the Infant not only variously discoloured, but marked with Strawberries, Cherries, and other Fruits, on several Parts of their Bodies. Many of which, as *Hildanus* remarks, are not to be deem'd incurable, but may be attempted according to their Situation. But no Part of the Skin or Flesh, preternaturally coloured, must be left behind; for, if it is, they will rise again. Some have recommended the Blood of the Secundine to be rub'd on the Mark. But *Sergerus* instances a Maid, who had the Back of her Left-hand of a fiery red Colour, by the Mother's apprehending a sudden Burning, when she was with Child. She anointed the discoloured Place with the Blood of an After-birth, which increas'd the Inflammation with much Swelling and Pain. The Surgeon, with Difficulty, stop'd these Symptoms, and the Mark remained.

Willius, in *Act. Danic. An. 74. Obs. 83.* recommends Section for removing the maternal Marks; which is easily performed, if the Tumor can be ty'd about with a Thread, and such Medicines apply'd, as may intercept the affluent Humours; but Care must be taken, that no Artery, great Vessel, or Nerve, be hurt. For, says he, if Nature permits the Loss of a Nose, an Ear, or Eye, why may she not do the same in these her spurious Productions? He gives an Example of a Child, who was cured of many soft Excrescences growing over its Eyelids and Forehead

To give my own Opinion on this Subject, says *Turner*: What Monsters are fit to be destroyed, or preserv'd, should be left to the Determination of the Civil Law, and the Judgment of Physicians before consulted. Distorted Members may be sometimes rectified, of which *Hildanus* gives us an Example, in *Cent. 3. Obs. 56.* And I knew, says *Turner*, a Child born with both Feet inverted, and treading on the Ancles; yet, with proper Splints, and Bandage, and a small Steel Plate, from the Shoe to the Knee, continued for seven Years, he was perfectly cured. To attempt to remove Discolourings of the Skin, is to little Purpose, as they penetrate it, and the Scar is like to prove a greater Blemish than the Stain itself.

In the Extirpation of large Excrescences resembling Fruits, or Foods, they are subject to degenerate into malignant Ulcers; and some of them, being supplied with a large Plexus of Vessels, endanger an Hæmorrhage: And, if they cannot be entirely eradicated, they will rise again, and be more obstinate and troublesome than at first. In these Attempts, therefore, it is necessary to consider their Situation, Extent, and Depth, what Vessels sustain them, and whether the Knife or Cautery be most proper for destroying them. Those which I have undertaken, says *Turner*, have been the Currans, Cherry, Raspberry, Mulberry, and the like lesser Fruits, when they have been securely seated, and their Surfaces not too much spread; or when their Basis has been small like a Stalk, and the Excrescence soft and pliable, without Inflammation, livid Complexion, or any Appearance of Malignity; whence I have known them degenerate into Cancers. The Time of Extirpation is, when they look palest, are flattest, and softest; for, like the Fruits they resemble, they have their Seasons of blooming, ripening, and languishing, but never entirely dying.

If they are join'd by a slender Stalk, or if their Basis will admit, I, says *Turner*, prefer the Ligature, taking care, when the Excrescence is dropt off, to penetrate the Root with a Caustic. The same Caution is to be observed in using the Knife, when I apply a small, hot, pointed Cautery, which stops Bleeding, wastes the remaining Fibres, and corrects any Malignity, and the Sore may be healed like a common Burn.

Hildanus being call'd to the Son of a Senator of the Canton of *Bern*, three Years old, having an Excrescence, like half a Cherry, on the upper Part of his Nose, which, at first, was no bigger than a Lentil, but increas'd as he grew, he undertook the Cure in the following manner.

Passing a Needle, with a Thread, through the Body of the Excrescence, he, with his Knife, separated it from its Bottom all round; when, passing the Point of the Knife towards the Forehead, a Branch of a Blood-vessel, being cut, hinder'd his Procedure. He contented himself with taking out what he had divided, and dressing with Astringents. When he open'd the Wound, he found some Remains in the discoloured Flesh, which he wasted with an Escharotic, made of the Ashes of Vine-tendrils, and Quick-lime, digesting out the Eschar with a Mixture of Turpentine, and Gum Elemi; he afterwards incarn'd, and brought on a seemly Cicatrix. In these Cases he recommends the Use of the Precipitate in tender Habits, beforehand wash'd and edulcorated, which I have sometimes known, says *Turner*, after the Removal of the external Skin, capable of wasting these fungous Appearances, to deterge the Ulcer, and dispose it for healing.

CASES FROM TURNER.

A Gentlewoman having been born with the Mark of a Raspberry, near her Eyebrow; about the ripening Season of that Fruit, it, as usual, assumed a florid Complexion, felt tender, and appear'd higher than ordinary, with small Grains, and little Hairs between them. By hastily running against the Edge of a Straw Hat, the Excrescence was cut through the Middle, which occasion'd great Pain, and much Trouble, for some Days, to stop the Bleeding; but, at last, dried up with a Scab. Some time after, the Scab, being pull'd off, in her Sleep, occasion'd a more plentiful Effusion of Blood than at first; upon which Account I was sent for, only to stop the Bleeding. I, however, prevail'd with her to have it entirely eradicated. I, at first, applied the Lunar Caustic, the Operation of which being impeded by a Discharge from a small Artery, I had recourse to the Lapis Infernalis, which secured the Vessel, and burnt deep into the Body of the Excrescence. After wiping out the Salts, with an arm'd Probe, I dress'd the Ulcer with a Pledget of Basilicon dipped in the warm Balsam of Turpentine. As it separated, I perceiv'd that I had taken in the whole Compass of the discoloured Skin; yet, at the Bottom, the Flesh, in some Places, grew granulated, like that already wasted, some of which I touch'd again with the Lunar Caustic, others with the End of my Probe, dipt in the Butter of Antimony, when, digesting out the Slough with warm Liniment and Balsam of Turpentine, I found the Flesh was still of the same kind, even as low as the Pericranium. Having proceeded as far with the Escharotics as was convenient, I fill'd the Ulcer with red Precipitate, and let it remain two Days, laying over the Digestive. Taking off the Dressings, there came out a thick Slough, made of the Remains of

of the Excrecence, under which the Membrane appear'd fair and clear, though somewhat inflamed. To prevent it from sloughing off, I dress'd with Lenients, and hasten'd Incarnation; yet the Cranium was bare about the Compass of a small Spangle; however, it heal'd without the least Exfoliation, and left an handsome Scar.

A Child having the Resemblance of a Currant on the internal Canthus of the Eye, towards the Top of the Nose, and it increasing, she was like to contract a squinting Cast of her Eye, by often endeavouring to view it. In order to remove it, I was consulted. Observing the Basis would admit of a Ligature, having a Needleful of wax'd Silk, and placing the Child on a Servant's Knee, I made a very close Ligature, apprehending that the Child would not suffer it to be straiten'd again, if there should be Occasion; and applied a Defensive all round, leaving a Hole in the Middle to let out the Excrecence. To prevent the Accidents of a Fever, the Child had a Clyster in the Morning, and had been blooded the Day before. Next Morning the Eye was inflam'd, the Eyelids swell'd up, and the Child became feverish; the Excrecence was grown livid, and seem'd near mortified. The Child being brought to the Window, with both her Eyes shut close, I pass'd the Point of my Scissors under the Ligature, snipt off the Excrecence, which was follow'd with but a few Drops of Blood, nor did the Child complain. Then I prest the Button-end of the Probe, made red-hot, moderately upon the Root or Stalk; after which, embrocating the Parts with Oil of Roses, the Tumor went off in two or three Days; and in two or three more the Burn was heal'd with so many Dressings of my Ointment of Lapis Calaminaris, (the first Dressing being only a small Pledget dress'd with Basilicon) and scarce left any Mark behind.

A Servant-maid having the Mark of a Shrimp upon her Cheek, the Removal of it had been attempted by Escharotics, by a Pretender to Surgery. Finding it troublesome, she applied to me; but it then seem'd a phagedenic Ulcer, with jagged and callous Lips on one Side, and on the other an overgrown Fungus. I propos'd to her the hot Iron, but, frighten'd at this fiery Trial, she would not submit to it. Afterwards, applying to an Empiric, her Cheek was overspread with the Malady, which was deem'd cancerous. *Turner, de Morb. cutaneis.*

IMBIBITIO, in Chymistry, imports a kind of Cohobation, when the Liquor ascends, and descends again, upon the solid Substance it is join'd with, till, at last, it is fix'd and coagulated with this Substance, so as to be no longer capable of rising. *Rulandus.* It, also, sometimes imports, simply, Cohobation; and any Sort of Impregnation.

IMMERSIO. Chymical Immersion is a Species of Calcination, when any Body is immers'd in any Fluid, in order to be corroded: Or it is a Species of Lotion, as when any Substance is plunged into any Fluid, in order to deprive it of a bad Quality, or to communicate to it a good one.

IMMERSUS. The Name of a Muscle. See SUBSCAPULARIS.

IMPAR. An Epithet for the critical Days, importing Odd. See CRISIS.

IMPASTATIO. Impastation is a Reduction of Powders, or any other Substance, to the Form of a Paste, by the Assistance of some convenient Fluid.

IMPATIENS HERBA. See BALSAMINA.

IMPERATORIA.

The Characters are;

The Leaves are not very ramous, but divided into three Segments, each of which is subdivided into three others. The Seeds are flat, oval, slightly striated, and margined.

Boerhaave mentions three Species of this Plant; which are,

1. *Imperatoria*; major. C. B. P. 156. *Tourn. Inst.* 371. *Boerb. Ind. A.* 53. *Imperatoria* & *Astrantia*. *Offic. Imperatoria*. J. B. 3. 137. *Rail Hist.* 1. 436. *Ger.* 848. *Emac.* 1001. *Imperatoria*, five *Astrantia vulgaris*. *Park. Theat.* 942. MASTERWORT.

The Roots of Masterwort are long, and full of Knots or Joints, about a Finger thick, running obliquely into the Ground, shooting out many Fibres from the Joints, of a strong aromatic Smell, and a pretty hot Taste; the lower Leaves are hardly a Span high, somewhat like Angelica, but much less, and divided into three Segments of roundish Leaves, crenated about the Edges; the Stalks seldom grow above a Foot high, with but few Leaves on them, and have, on their Tops, Umbels of small, white, five-leav'd Flowers, each of which is succeeded by two round, whitish, somewhat flat Seeds. It is cultivated with us in Gardens, its native Place being the *Austrian* and *Stirian* Mountains, and other *Alpine* Countries, flowering in *July*.

The Roots, which are the only Part used, are cordial, sudorific, and alexipharmic, of great Use in putrid malignant Fevers, and all contagious pestilential Distempers; they resist Poison, and the Bites of venomous Creatures. They help Pains of the Stomach, and the Colic; in all nervine Affections, and Disorders of the Head, they are used with good Success. *Miller's Bot. Off.*

The Roots are oblong, about an Inch thick, wrinkled, cirrhus and geniculated, brown without, white within, of an aromatic acid Taste, and fragrant Smell.

The *Historia Plantarum*, ascrib'd to *Boerhaave*, ascribes the following Virtues to these Roots: They are attenuating, he says, and aperitive; provoke Saliva, if held in the Mouth; and are cathartic, if taken inwardly, whence the Root of *Imperatoria* is called *The Countryman's Purge*. Taken in a lesser Quantity it proves sudorific and diuretic. In the hysteric and convulsive Colic, and the Tympanitis, it often works with such Violence as to require Correctors, such as *Levisiticum*, *Meum*, or some other sweet and viscid Root. In intermittent Fevers, especially Tertians and Quartans, it is a specific Remedy, as well as in comatous Disorders. It has the same aromatic, hot and igneous Taste and Smell in every Part of it; and, whether it be used in Infusion or Decoction, is inferior to no Medicine for Speed in giving Relief under the Effects of Poisons of a volatile Kind, working by gentle Sweat, and, if exhibited in a larger Quantity, by Stool. It is recommended, also, in the Dropsy, being taken to the Weight of an Ounce in Honey, provided the Viscera be sound: It is, also, an Antiscorbutic. It is highly commended in Cases where any one of the Viscera requires to be speedily freed from some viscid Matter. *Baglivi* very much commends it for Diseases of the Breast, for the Pleurisy and Peripneumony, in Cases where the Matter is concocted, but the expulsive Faculty deficient: For these Purposes the Root is infused in Water, which is afterwards sweeten'd with Honey, and proves an excellent Promoter of Expectoration, to the Relief of the Patient from the Disease. It is one of the principal Ingredients in the same Antidotes as Angelica: Being heating and aperitive, it is effectual for dissolving of Tumors, where there is no Inflammation, or in those of the scorbutic Kind. If the Root be divided in the Middle, you discover a Multitude of Vesicles full of an oily and balsamic Substance, endued with an igneous Quality, which renders the Root more heating than that of Angelica, and as good a Corrector of a fetid Breath. The Root is to be taken up in the Middle of Winter, in its second Year. The Leaves bruised are good to discuss cold Tumors. The distilled Oil, as well as the Spirits, are carminative and stomachic. The Root is justly accounted one of the best Antiscorbutics, and, boiled in Water, affords an excellent Remedy for the Gravel in the Kidneys, and a Stoppage of Urine.

2. *Imperatoria*; Alpina; maxima. T. 317.

3. *Imperatoria*; quod *Laserpitium*. *Prosperi Alpini Exot.* 211. *Boerb. Ind. alt. Plant. Vol. 1. p. 53.*

The last *Prosper Alpinus* takes to be the *Laserpitium* of *Theophrastus*, *Dioscorides*, and *Pliny*. He informs us, that this Plant was raised at *Padua*, from Seeds brought from *Thrace*. He says, the whole Plant is hot, of a grateful Smell, and acrid Taste.

IMPERFORATIO. Imperforation is, when any of the natural Passages are not perforated. See ANUS, VAGINA, and URETHRA.

IMPERIALIS CORONA. See CORONA IMPERIALIS.

IMPETIGO. The same as *Lichen*. See LEPRO.

IMPETUS, when used relative to the Heart, and Circulation of the Blood, means, simply, Force. With respect to Diseases, it is the same as a Paroxysm. Sometimes it imports the same as *Impetigo*.

IMPIA HERBA. See FILAGO.

IMPLICATUS, or IMPLICITUS, imports complicated. See COMPLICATIO.

IMPLUVIUM. An Embrocation.

IMPOTENTIA. Impotence, with respect to Men, is the same as Sterility in Women; that is, an Inability of propagating the Species. There are many Causes of Impotence, as a natural Defect in the Organs of Generation, which seldom admits of a Cure; Accidents; or Diseases; and in such Cases the Impotence may, or may not, be remedied, according as these are curable, or otherwise. But I am inclined to believe, that the most frequent Causes of Impotence are preposterous Methods of Venery, (see *Gonorrhoea*) and too often repeated Venereal Injuries.

I have some Reason to believe, that a sudden Impotence happening to a Person not accustom'd to any Disorders of that Kind, and not accountable for from any preceding Accident, is a Forerunner of some great Disorder. And in such Cases Provocatives are very dangerous, because 'tis possible they may increase the Disorder which causes the Impotence, and make it fatal. Thus I have sometimes met with terrible and fatal Fevers, excited by the Exhibition of warm and stimulating Provocatives.

Hippocrates, in his Treatise *de his que Uterum non gerunt*, advises a Man, who has a mind to get Children, not to be drunk, nor drink White-wine, but that which is strong and unmix'd, nor to use the warm Bath.

Another principal Cause of Impotence is the execrable Habit of drinking Spirits, that is, Drams; insomuch that, if Legislators do not take care to put some effectual Stop to it, in a few Centuries the whole Race of Mankind will, probably, be extinct, without a Conflagration, or a second Deluge.

Relative

Relative to Impotence, Dr. Cockburn, in the *Edinburgh Medical Essays*, gives the following remarkable Case: A noble *Venetian*, aged twenty-two Years, was married to a very fine Lady, with whom he cohabited with a good deal of Vigour, but his Embraces were never attended with an Emission; whereas in his Dreams this happen'd very freely. This Misfortune very much afflicted him and his Family; and, as no Remedy could be found at Home, the *Venetian* Ambassadors, residing in the different Courts of *Europe*, were desired to consult some of the most eminent Physicians, in the Parts where they resided, to account for the Cause, and to find out a Cure for this extraordinary Complaint of the Difference of the States when in Sleep, and during actual Embraces.

I was of Opinion it consisted altogether in the Urethra being closely shut up by the Vigour of the Erection, which form'd so great a Resistance, that the Powers which throw the seminal Juices out of the *Vesicula Seminales* could not overcome it; whereas, in Dreams, the Pressure of the Urethra being much less, an Evacuation was made.

The Method of Cure was not less successful than obvious, from the foregoing Account; for gentle Evacuations, and a slender Diet, brought about, and fully completed, their Desires.

IMPRÆGNATIO. Impregnation.

Upon the Cessation of the menstrual Flux, which happens sometimes, but rarely, at the Age of thirty-five or forty, generally at forty-five or fifty, the Belly swells considerably, and, after some Months, great Floodings come on, accompanied with slight Pains about the Regions of the Loins, and the lower Part of the Belly; and from these Circumstances the Woman is deceiv'd with a Belief, that she is really with Child.

In this Case the Belly, though large, is equally soft all over, without any more Hardness or Resistance in the lower, than the upper Part. But the surest way of distinguishing this Case from Impregnation is, by the Touch; for, if the Woman is not with Child, the *Os Internum* will be found open, and in its usual State.

When a Woman is really with Child, her Belly grows less, or at least not bigger, till the End of the second Month; whereas in any false Conception it enlarges from the very first Day.

A Woman perceives the Child to move at different Periods, the soonest at the End of forty Days, the latest at the End of four Months and an half, or five Months.

It sometimes happens, that a Woman becomes pregnant without ever having had the menstrual Flux; others, again, have been with Child, notwithstanding which, the *Menses* have not ceas'd till the fifth, sixth, and even seventh Month; others again, though really with Child, have grown big from the very Beginning; and those whose *Menses* have not ceas'd for many Months, but have continued, have, at last, proved with Child, though they have scarce ever perceiv'd its Motion. Some, also, have perceiv'd a Movement not unlike that of a Child, without being really pregnant.

La Motte seems to think, that a very large Child, and a very small Quantity of Waters, may be the Reason why a pregnant Woman, sometimes, scarcely at all perceives the Motion of the Child.

It is not an easy Matter to be certain when a Woman is with Child, before the End of the fourth Month, all the Marks of Pregnancy, till that time, being equivocal, and capable of deceiving; but the sensible Motion of the Child makes the thing sure, which it is easy to distinguish from certain convulsive Motions of the Uterus, and adjacent Parts, which Women sometimes feel, and thence deceive themselves into an Opinion of being with Child.

But the most infallible way of ascertaining the thing is, by the Touch; the Method of which is thus: The Woman is to be set in a crouching Posture, that is, as if she was going to sit down, with the superior Parts of her Body bent forwards; then one, or rather two, Fingers are to be introduced into the Vagina, and, in Pregnancy, the *Os Internum* will be found entirely clos'd; the Neck of the Uterus, or that Part which protrudes into the Vagina, will be felt but very little, or not at all, according as Pregnancy is more or less advanc'd; for, as the Woman approaches nearer the Term of Delivery, the more the Neck of the Womb is dilated, so as to disappear entirely in the last Month of Gestation. At the same time the Body of the Uterus will be felt full, and distended.

The Motion of a Child in the Uterus, join'd to these Circumstances, renders the Signs of Pregnancy certain.

La Motte, before he makes this Essay by the Touch, lays the Woman upon her Back with her Knees elevated, and the Heels near the Clunes; and if he finds the Belly more hard and distended in the Hypogastrium, than in the Epigastrium, he judges the Woman to be pregnant.

It is not so easy to distinguish Pregnancy by the Touch before the End of the fourth Month, as afterwards; and then a Person of Experience may foretel the Time of Delivery by the State of the *Os Uteri*.

Some Women are sensible of being with Child, from the very Moment of Conception. In this Case they perceive a

greater Degree of Pleasure than usual during the Enjoyment; which is followed by a somewhat painful Sensation about the Navel, and a Shivering all over. Mean time the external Parts of the *Pudenda* are more dry than usual, because the Male seminal Fluid remains in the Uterus.

The Man, also, upon these Occasions, has his particular Sensations, feeling a kind of Suction at the End of the Glans, at the time of Emission, which is attended with some Degree of Pain, notwithstanding the usual Ecstasy. *La Motte. Traité des Accouchemens.*

IMUS VENTER sometimes, in general, signifies the *Abdomen*; and sometimes the lower Part of the *Abdomen*, or the **HYPOGASTRIUM**.

INAIA *Guacuba*. A Name for the *Palma*; *Indica*; *coccigera*; *angulosa*.

INANITIO. See **CENOSIS**.

INAPPETENTIA. See **ANOREXIA**.

INAURATIO. Gilding. This is of Use in Medicine, only in beautifying Pills, or Bolus.

INCARCERATA HERNIA. See **BUBONOCLE**.

INCARNANTIA. Medicines which assist Nature in filling up Wounds, or Ulcers, with Flesh; or, rather, remove the Obstructions to it. Internal Incarnants are Aliments which supply a balsamic Chyle, and, consequently, generate Flesh, and produce a full Habit.

INCENDIUM imports a burning Fever; or, sometimes, any febrile Heat.

INCENSIO. The same as **INCENDIUM**; or it signifies a hot inflammatory Tumor.

INCERATIO. Inceration is the Reduction of any dry Substance to the Consistence of soft Wax, by the gradual Admixture of any Fluid therewith.

INCERNICULUM. A Sieve, Sierce, or Strainer. In Anatomy, the Pelvis of the Kidney is called *Incerniculum*.

INCIDENTIA. Inciding Medicines. See **ALTERANTIA**.

INCINERATIO. Incineration is, properly, the Reduction of any Body to Ashes, by the Application of Fire. This Term is principally used, with respect to Vegetables, when reduced to Ashes, in order to make fixed alkaline Salts, which are called Salts by Incineration.

INCISIO. An Incision or Cut, or the making an Incision.

Incision is generally used relative to Chirurgical Operations; for, in Surgery, there are various Sorts of Incisions; which are taken notice of, under the Articles to which they belong.

INCISORES. An Appellation for the four anterior Teeth: See **DENS**.

INCISORIUM, *πυρίον*. A Table whereon a Patient is laid, in order to have an Incision made in any Part.

INCLINATIO. Inclination, in Pharmacy, is the changing the perpendicular Situation of a Vessel, to one which is oblique, that the limpid Liquor, contain'd therein, may flow out of the Mouth, and the subsiding Fæces remain behind. With respect to the Humours, their Inclination is their Tendency to any particular Part.

INCOCTUS has two opposite Significations; for it either imports *not boiled*, or *else well boiled*: This Ambiguity arises from the Force of the Particle *in*, which has, as the Grammarians express it, both a privative and intensive Signification.

INCONTINENTIA. Incontinence. Besides the moral Sense, it signifies, in Medicine, an Inability in any of the Organs, to retain what should not be discharged, without the Concurrence of the Will. See **ACRASIA**.

But Incontinence is most frequently used, with respect to an involuntary Discharge of Urine.

The Bladder is sometimes so debilitated in Men, that their Urine flows from them involuntarily: This may proceed from a Stone in the Bladder, or a Palsy of the Sphincter. In the first Case, the only Remedy is Lithotomy, or an Extraction of the Stone: Nor is Lithotomy infallible; for that Operation frequently causes the Disorder. But, if it proceeds from a Weakness of the Neck of the Bladder, strengthening and nervous Medicines are most likely to remove it.

But, as this Disorder often baffles the utmost Power of Medicines, the Surgeons have contrived Instruments to retain the Urine. Some recommend a Leathern Bag, lined with Pitch, to be worn in the Breeches, between the Thighs, large enough to contain half a Pint: Others prefer a Brass or Steel Pot, fasten'd to the Penis, (see *Tab. XLVII. Fig. 7.*), which are to be emptied, when near full. But, as these are very inconvenient, some of our Moderns have invented more light and easy Instruments, whereby the Penis and Urethra are gently compressed, so as to retain the Urine in the Bladder, and discharge it at Pleasure, during either the Day or Night, by opening or shutting this light Instrument, (see *Tab. XLVII. Fig. 8.*) which is lined with Leather, and taken from *Nuck*. Another, still more convenient, is represented at *Fig. 9.* which may be tightened or relaxed, according to the different Size of the Penis: This, says *Heister*, I have often used with Success; nor was it ever before delineated by any one.

An Instrument was formerly recommended by *Nuck*, and lately by *Wynflow*, for this Disorder; not unlike that used for Ruptures (and represented *Tab. XLVII. Fig. 10.*): It is to be fasten'd round the Body, in the manner directed for compressing Fistulas in the Perinæum, so that the Bolster F may be fixt tight upon the Perinæum. Thus, by turning the Screw D, the Urethra may be compressed or relaxed, and the Urine discharged or retained, at Pleasure. But, tho' I would not absolutely reject this Method, Experience convinces me, that the other, above-mention'd, is much more easy and commodious.

An Incontinence of Urine, in Women, frequently proceeds from a difficult Labour, or from a Weakness of the Sphincter, by the violent Extraction of a large Stone; tho' it sometimes happens from a natural Weakness, or Palsy, as in Men. But, whatever the Cause may be, when it is inveterate, or proceeds from the Palsy, it will neither submit to internal Medicines, nor external Machines.

If, however, it arises from the Extraction of a Stone, especially in Girls, or young Women, it often goes off spontaneously, or by the external and internal Use of Astringents: If these fail, it is, generally, looked upon as incurable. *Hischerus*, however, asserts, in a Dissertation upon this Subject, that the best Method is, to introduce a Pessary, or Ring, of a proper Size, into the Vagina, as for a Prolapsus Uteri (see *Tab. LV. Fig. 6. 7. 8.*): For the Introduction of this into the Vagina, under the Urethra, compresses the latter so firmly, that the Urine may be retained or discharged at Pleasure.

INCORPORATIO. Incorporation is much the same as Impastation, being a Reduction of dry Substances to the Consistence of a Paste, by the Admixture of some Fluid: Thus Pills, Boles, Troches, and Plaisters, are made by Incorporation. Another sort of Incorporation is, when things of different Consistences are, by Digestion, reduced to one common Consistence.

INCRASSANTIA. Incrassating Medicines, that is, such as reduce the too fluid Blood, and Juices, to a proper Consistence, and a due Condensation. See **ALTERANTIA**.

INCRUSTATIO, in Surgery, is the Induction of a Crust, or Eschar, upon any Part.

INCUBA is interpreted, by *Rulandus*, *Sponsa solis*.

INCUBUS. This Word is not found in *Hippocrates*; but *Cælius Aurelianus*, who calls it *Incubo*, has a Chapter upon it.

The Incubo, says that Author, takes its Name, according to some, from the Form or Similitude of a Man; others derive it [*quasi ab Incumbendo*, from lying or pressing upon] from the Imagination of the Patients, who fancy they feel something ascending and sitting upon their Breast. *Themison*, in the second Book of his Epistles, calls this Disease *πνιγισμὸς*, [from *πνίγω*, to suffocate] because it suffocates the Patients. Some of the Antients gave it the Name of *ἐπιβάλλης*, *Ephialtes*, [from *ἐβάλλω*, to leap upon]; others called it *ἐπιβάλλω*, *Epibole*, [from *ἐπιβάλλω*, to press upon] an Oppression; because the Patients imagine, that somebody leaps upon them, and oppresses them: The Disorder is incident to Persons after a Debauch, and to those who are continually molested with Crudities. A single Fit of the Incubus, not succeeded by any Complaint from the Patient, nor any visible Dysparesthesia, or Moroseness, but only discovering itself by a disturbed Sleep, can by no means be called a Disease, no more than a single Emission of the Semen in Sleep, which the *Greeks* call *ονειρογονία*, *Oneirogonos*, can be called a Disease, unless it returns frequently, and is attended with Inconvenience to the Body. The Incubo lays a Foundation for the Epilepsy; for that it is neither a God, nor Demigod, nor *Cupid*, has been very fully demonstrated, by *Soranus*, in his *αιτιολογούμενα*, *Aitiologoumena*, or Books of Causes.

The Patient, under this Disorder, cannot stir himself, but with the utmost Difficulty; is seized with a Numbness, and a Sense of Weight, with a Dread of Suffocation, and an Oppression, as from somebody falling suddenly upon him, with an Intent to deprive him of Lite and Sense, not suffering him to cry out: Hence it is usual with such Persons to start up, and cry out, in a confused inarticulate Voice. Some are affected to that Degree, as to imagine, that they see or hear the Voice of the Phantom pressing upon them, and alluring them to forbidden Pleasures; but, when they endeavour to lay hold of it by the Fingers, it seems to slip from them. When they arise from Sleep, they feel their Face, Eyes, and other Excretories, bedew'd with Moisture, and a Stiffness of the Neck, with a gentle tickling Cough. The Disease, when grown inveterate, is attended with Paleness, and Extenuation of the Body, naturally consequent from want of Sleep, occasion'd through Fear.

This appears to be a Disease of Stricture, from the Sense of Weight attending it; and of the chronical Kind, from the Length of Time; and it is not always without Danger, for some have died under the Violence of the Suffocation. *Silimachus*, a Follower of *Hippocrates*, writes, that the Incubo was once contagious at *Rome*; and that Multitudes died under it, as by a Pestilence. *Cælius Aurelianus*, *Morb. Chronic. Lib. 1. Cap. 3.*

The Incubus is of a bad Kind, when it seizes the Patient, tho' awake, in the Night; but, worst of all, when, after molest-

ing him in his Sleep, it leaves him to awake under a cold Sweat, and Palpitation of the Heart. This Disorder seldom or never happens to Persons lying on their Side: They, who have been long and often subject to it, have Reason to apprehend some dangerous Distempers of the Head, as a Vertigo, Apoplexy, Epilepsy, Convulsions, or sudden Death: It is certain, that many, under this Disorder, have been found dead in their Beds. *Lom-mii, Med. Obs.*

The Ephialtes demands our Care in the Beginning; for, when it is grown inveterate, and molests the Patient every Night, it is a Prognostic of some great Disease, as an Apoplexy, Madness, or Epilepsy, when the Cause of the Disease is translated to the Head; for they, who labour under an Incubus, suffer after the same manner, in their Sleep, by Night, as epileptic Patients in the Day-time.

The Cure consists in Evacuations by Phlebotomy, and Cathartics. A very proper Purge, on this Occasion, is prepared of a Dram of black Hellebore, half a Dram of Scammony, mixed with some sweet-scented Simples, as Anise, *Daucus*, and *Petroselinum*. *Hiera*, prepared of the *Cucurbita Sylvestris*, relieves the Patient, also, to a great Degree: This is *Rufus's* Prescription. The Patient must be kept to a thin Diet, and avoid all flatulent Food. The Seed of Peony is, also, of Use in this Case, fifteen of the black Seeds being taken every Day, bruised in Water. *P. Ægineta, Lib. 3. Cap. 15.*

INCURSUS, in *Bellini*, imports the Pulsation of the Arteries.

INCUS. The Name of a small Bone in the internal Ear. See **AURIS**.

INDARION. The Appellation of a Collyrium, described by *Aetius, Tetrab. Serm. 4. Cap. 113.*

INDEX. The fore Finger. The Days on which future Crises may be presaged, are, also, called *Dies Indices*. See **EPIDELOS**, and **CRISIS**.

INDICANTES DIES. See **DIES INDICES**.

INDICANTIA are those Circumstances observed in a Patient, relative to his past, present, and future State, which indicate or direct what is to be done for his Relief.

INDICATA. The things indicated to be done by the Circumstances of a Patient, in order to preserve Life or Health, or remove Diseases. See **FIBRA**.

INDICATIO. Indication. This is explain'd under the Article **FIBRA**. The prophylactic, or preservative, Indication relates to the Preservation of Health, by averting Diseases; the curatory Indication, to the Removal of Diseases; and the vital Indication, to the immediate Preservation of Life. But there is another Indication, called Urgent, Mitigatory, or Palliative, which relates to the Mitigation of the Symptoms, when too violent to be neglected till the Termination of the Disease.

INDICATOR. The Name of a Muscle; the same as **EXTENSOR INDICIS**.

INDICIUM. A Sign, in Diseases, of something future.

INDICO. See **INDIGO**.

INDICON, *Ἰνδίκον*, as *Hippocrates* tells us, *Lib. 2. de Morb. Mul.* is what the *Persians* call Pepper, whose round Fruit is call'd *Myrtidanos*. Here *Galen*, in his *Exegesis*, says, that the Compilers of Catalogues of Simples took the Indicon to be Ginger (*ζεφυρίδες*), from a mistaken Notion, that Ginger was the Root of Pepper; when it is certain, that Ginger and Pepper belong to different Plants, as appears from *Dioscorides, Lib. 2. Cap. 189, 190.* But *Dioscorides* the younger, who wrote a Glossary, says, that the Indicon was a Plant, growing in *India*, much resembling Pepper, and bearing a Fruit called *Myrtidanus*, from its resembling a Myrtle-berry: Thus far *Galen*. *Indicum Medicamentum*, and *Indici Potus*, are mention'd by *Hippocrates, Lib. 2. de Morb. Mulier.* and the former is recommended for a fetid Breath. See **INDIGO**.

INDIGENA. A Name for the *Eruca*; *Tanacetifolia*.

INDIGESTIO. Indigestion.

INDIGNATORIUS MUSCULUS. A Name for the *Annucror Oculi*.

INDIGO.

Indicum. Offic. *Indigo vera Coluteæ folii utriusque Indiæ.* Aët. Philof. Lond. N°. 276. p. 703. & N°. 276. p. 1016. Nil, five Anil, *Glastrum Indicum.* Park. Theat. 600. Nil, five Anil, five Indigo Indica. Hist. Oxon. 2. 202. Anil, five Nil, *Indorum color.* J. B. 2. 945. *Emerus Americanus siliqua incurva.* Tourn. Inst. 666. *Coronilla Indica, ex qua Indigo.* Volch. 124. *Caachira prima.* Pif. (ed. 1658.) 198. *Herva de Anil Lusitanus.* Marcgr. 57. *Ximbquilith pitzahac, five Anil tenuifolia.* Hern. 108. *Colutea Indica herbacea, ex qua Indigo.* Herm. Cat. Hort. Lugd. Bat. 168. Hort. Montp. 61. *Colutea Indica humilis, ex qua Indigo folio viridi.* Par. Bat. Prod. 325. *Coluteæ foliis Anil.* Chab. 82. *Coluteæ affinis fruticosa, floribus spicatis, purpurascens, siliquis incurvis, e cujus Tinctura Indigo conficitur.* Cat. Jamaic. 141. Hist. 2. 34. Tab. 179. f. 2. *Sesban Aniliferum Indicum Coronellæ foliis, vel Indigo Indica.* Breyn. Prodr. 2. 91. *Ameri.* Hort. Mal. 1. 101. f. 54. *Polygala Indica frutescens Hermannii.* Raii Hist. 1. 926. *Phaseolus Americanus vel Brasilianus sextus.* C. B. P. 242. *Isatis Indica folius Rorismarini,* *Glasfo*

Glasio affinis. Ejusd. 113. *Hin awaru, Polygala Indica, ex qua Indigo minor.* Herm. Mus. Zeyl. 43. BLUE INDIGO. See ANIL.

This Juice is brought both from the *East* and *West Indies*, made up in different Forms. The most esteem'd is that of *Guatemala*; which is the *Fæcula* of a Plant term'd *Emerus Americanus, siliqua incurva.* I. R. H. Some Physicians have recommended Indigo in the Quantity of a Dram; but others look upon it as a Poison: And in *Saxony* the internal Use of it is prohibited. *Geoffroy.*

INDUCTIO. Induction, in Pharmacy, implies spreading a Plaister, or the Application of any thing to any Part of the Body.

INDUS. *Indian.* An Epithet for some medicinal Compositions. Thus, certain purging Pills, described in the *Augustan Dispensatory* from *Mesue*, are call'd *Pilulæ Indæ Halj.* And *Galen, Lib. 4. Cap. 13. de Comp. Med. P. G.* mentions the *Emplastrum Indum Tharsei Chirurgi.*

INDUSIUM. A Shirt, or Shift. It has been a controverted Point among some Physicians, Whether it is proper to change the Linen in Distempers, or not? I think the Whole may be reduced to this: If a Person does not sweat, there seems to be but very little Danger of taking cold; and then clean and fresh Linen is not only agreeable, but of Use, as it contributes to promote Perspiration. If the Patient sweats, provided these Sweats are symptomatical, it does no Injury to check them; if critical, it may not be so prudent to change the Linen, whilst they flow plentifully; but, if they remit, there is more Danger of taking Cold from the wet Linen, than from changing it, provided it is previously well air'd. In all Cases the perspirable Matter, or that of Sweat, impregnates the Linen, and becomes in some Degree acrimonious, which must have a very bad Influence, in acute Distempers particularly. And that the Acrimony contain'd in Linen may have a very bad Effect on the Body, *Diemerbroek* confirms by a memorable Instance of a Person, or, as I remember, of several Persons, upon Recovery from the Plague, who relaps'd immediately, and died, upon putting on Linen wash'd with Soap.

As many People contract a Habit of wearing Flannel Shirts, or Shifts, in order to set them right, I shall give the Judgment of *Wainwright* thereon.

By what Fate so many of late fall in with an Opinion of the Advantage of wearing Flannel, I cannot tell; but this I am well satisfied of, that it does Hurt to two for one that receives Benefit from it, and there is none to whom Flannel is more prejudicial than those to whom it is generally prescrib'd, being weak, faint, or hectic People. Indeed it must be confess'd, that there are some that receive Benefit by it; but they are very few: And I question not but some ascribe that to Flannel, which is owing to some other Cause unknown, and which had perform'd the Cure more speedily and perfectly, had the Person never used it.

A Man of a robust Constitution, who eats and drinks well, and yet uses not Exercise enough to throw off the Remains and Dregs of a full and nourishing Diet, and who is subject to Defluxions, Catarrhs, Pains in the Joints, and such Distempers as are owing to a Plethora, will receive Benefit by wearing Flannel; though too long a Use of it may so relax the Tone of the Fibres of the Skin, as to hinder that Perspiration which before it helped: For, though the Quantity of perspirable Matter be in proportion to the Wideness of the Pores of the Skin, yet they are not the widest when the Skin is most relaxed; however, it is necessary, that the Skin be considerably relaxed, that the Pores may be increased to their greatest Diameter.

The most certain and constant Effect of wearing Flannel is, to make a more free and plentiful Perspiration; which, though it be attended with great Advantages (according to *Sanctorius*) when moderate, yet, when excessive, nothing is more pernicious. The other Effects we observe from it, as they are more uncertain, so are they but the Consequences of this: Now, since the Increasing of one Evacuation is the Lessening of another; therefore, whenever too much is thrown off from the Blood, either by Stool, Urine, or Spittle, it may be proper to wear Flannel.

Both *Waldschmidt* and *Baglioli* observe, that Diarrhoeas from immoderate Grief are incurable; and that principally from a Suppression of Perspiration. Grief contracts the Skin, as all troublesome Passions of the Mind do; so that the perspirable Matter, being retained, will be thrown upon some other Glands; and, if on those of the Intestines, will continue a Diarrhoea. It is, also, observed, that the Use of Venery makes the Body costive; and this it does only by promoting Perspiration by an universal Relaxation of all the Fibres, which is always proportionable to the Intenseness of the Pleasure: And for the same Reason it is, that weak Persons are subject to a Looseness in Winter, (when the cold Air shuts up the Pores of the Skin) which they are free from in Summer. In a Dysentery, the last-mentioned Authors, above all things, order the Body to be kept warm, and especially the Feet, to promote Perspiration; and

the latter observes a Consent between the Skin and the Intestines, as *Hippocrates* did before him.

Sanctorius, in his 46 *Aph. Sect. 1.* tells us, that the perspirable Matter retained, neither being resolved by Nature, nor a Fever supervening, dispose the Body presently to a malignant Fever. And *Dr. Cockburn*, in his Treatise of the *Distempers of Seafaring Men*, gives Instances enough of Fevers from a suppressed Perspiration. In such Cases as this, where, by the preceding Symptoms, (as a Dejection of Appetite, spontaneous Lassitude, sudden Loss of Strength, a Stupidness with Inclination to sleep, the Want of usual Stools, and the like) a Fever is threatened, nothing will contribute more to prevent it, than restoring Perspiration to its wonted Freedom; and Flannel may very well act its Part in this Scene. But these Cases I have taken notice of, are such as Flannel is seldom or never order'd in, though in these only we may expect Advantage from its Use.

That it may appear how prejudicial Flannel is to those who perspire too much, as most weak People do, and to whom the wearing of Flannel is generally prescrib'd, I shall observe from *Sanctorius*, that insensible Perspiration is double to all the sensible Evacuations made by Urine and Stool put together; and that it is to that made by Stool as Forty to Four, so that it is ten times greater than that by Stool: Therefore a Man will be made no weaker by having ten times as many Stools as he used to have, than he will be by perspiring only double the Quantity he does at other times. Further, if we consider, that the greatest Part of our Stools are the Remains of our Food, that could not enter the Lacteals, we shall find the Difference much greater; for we cannot imagine, that above one tenth of what we void by Stool, is evacuated from the Mass of Blood by the Liver, and intestinal Glands; so that upon this Account there is as much derived from the Mass of Blood in one Day by Perspiration, as by Stool in an hundred; therefore, if Perspiration by any means be doubled, in twenty-four Hours it will make a Man as faint, as if he had an hundred times more Stools in the same time than usual. And there are none but who expect a Weakness from an unusual Purging; and we daily experience the sudden Danger of a Diabetes, wherein the Quantity of Urine is increased; but take little notice of an increased Perspiration, because insensible; for which Reason we are subject to ascribe the Mischief it occasions to some other Cause.

A consumptive Gentlewoman, in *Sheffield*, by the Advice of a Physician, putting on a Flannel Shift, though she was able very well to walk about the House, in two Days time she was confin'd to her Bed, (from whence she never rose) without any other evident Cause than wearing Flannel.

If what I have said be of Force enough to persuade any to leave off wearing it, I would advise them to do it in a warm Season; and, at the same time, either to make use of the cold Bath, or the Flesh-brush, which will prevent the Inconveniences that would otherwise attend it.

I was persuaded, says *Wainwright*, to wear Flannel next my Skin, above ten Years ago, for a severe Cough that I had got; by which, I think, I received some Advantage. But, after I had worn it a Year or two, I found it very troublesome, and prejudicial to my Health; it made me so exceedingly tender, that I was not able to bear the least Cold; and I found, by the Experiment of leaving it off, how much it dispos'd me to Faintness, which I mightily suspected before; and, therefore, I attempted several times, in vain, to get quit of it, but could not, without some Inconvenience greater than I was willing to bear; till about two Years since, in an hot Season, going into a cold Bath, I left it off without any Damage. *Wainwright of the Non-naturals.*

INDUSIUM, also, signifies the AMNIOS.

INESIS, *inotus*, from *inotē*, to empty. Evacuation.

INFANS. An Infant, or Child.

Mankind is every way surrounded with so many and so great Miseries, that inexpressible Care, Solitude, and Diligence, are necessary, in order to avert the Violence of so many Diseases, to which we are subjected. New-born Infants are flagrant Instances of this our Frailty; since, as soon as they have well saluted this Scene of Woe with their Cries, they are beset with numberless Dangers, and require our perpetual Care for their Preservation. And at the same time that these frequent Dangers threaten them, their tender and almost defenceless Age is not furnished with Abilities to discover Remedies proper for the Cure of Diseases; or to express the Condition and Violence of them, unless they move the Compassion of others by Complaints, and other obscure Signals. How strictly, therefore, is it incumbent on the Physician, who studies the Preservation of Mankind, accurately and diligently to undertake the Cause of this feeble Age, and inquire what Distempers it is most liable to, by what Symptoms they are to be discovered and foretold, by what Cautions they are to be prevented, and, lastly, by what Art and Medicines to be subdued? For these Reasons, says *Frederic Hoffman*, am I now induced, after all my former Labours, finished with some little Success, to say something of the Diseases of Infants; especially as I find, that others, who have labour'd in the same kind of Studies, have

have left many Things untouched, and not well digested; or, at least, capable of Improvement. Nor do I flatter myself with less Hopes of Success in this, than my former Undertakings; as I shall not propose Things vain, imaginary, and founded on false Opinions, but true, and conformable both to Reason and Experience; which I have learnt from the Practice of half an Age and more.

But we will first shew the principal Diseases of Infants, before we enter upon an Inquiry into the Causes of them; and, in this Pursuit, choose *Hippocrates*, the great Father of our Art, for a Guide, who, *Lib. 3. Aphor. 24. 25. and 26.* thus describes the Distempers of that Age, with his usual Elegance and Conciseness: The Diseases, which the different Stages of Infancy are subject to, are generally these: To little Children, and those newly born, the Thrush, Pukings, Coughs, Watchings, Startings, Inflammations of the Navel, Runnings of the Ears, (to which we add Gripes) are familiar. When they begin to breed Teeth, troublesome Itchings of the Gums, Fevers, Convulsions, Diarrhoeas happen, especially when they put forth the canine Teeth; and in those particularly, who, amongst Children, are very gross, and inclinable to be costive. But, when they are advanced in Years, (which may very properly be supposed to mean from four to ten, and longer) they labour under Inflammations of the Tonsils, inward Luxations of the Vertebra next the Head, Asthmas, Stone, round Belly-worms, Ascarides, penile Warts, Satyrjases, Stranguries, scrophulous Tumors, and other Tubercles, but principally the above-mentioned afflict them. Whoever considers these Things thoroughly, will perceive, that some Distempers are incident to every Age of Infants, which affect the Body differently, are of a longer or shorter Continuance, and threaten more or less Danger. For the Texture of the Body being changed by Age, and the manner of Living alter'd, the Disposition of the Subjects to receive Disorders must necessarily be varied, and the last Cause of Distempers differ widely from the former. If, therefore, we will treat of the Affections of Infants, we ought to include each Period of their Infancy, and not confine the Term, in a strict Sense, to those newly born, but extend it even to those of ten Years old; lest, whilst we are explaining one kind of Disease, we omit another.

Thus have I, from *Hippocrates*, enumerated the principal Diseases of Infants; some of which are discovered very easily, others not without Difficulty. My next Endeavour shall be to specify their proper Diagnostics; which, however, are so difficult and obscure, that even the most penetrating are deceived in their Judgment. Nor can Children themselves, for want of articulate Sounds, reveal to us the Nature of their Disorder, and its manner of hurting them; nor can we form a certain and unerring Judgment, either from the Urine, though examined with the greatest Care; or from the Beating of the Pulse, however accurately observed; or from the external Habit, which, as it easily changes for the worse, so does it suddenly for the better. For the Urine of Infants, whether in Health or Sickness, is often thick and turbid; and the Pulse may be altered from almost innumerable Causes, and either accelerated, or retarded, so as to impose upon the most skilful. But that the Physician may not be left uncertain, he should thoroughly examine the Women, who have the Care of the Children, whether they cry, toss about with Restlessness, pass both Day and Night without Sleep; whether their Eructations are acid or nidorous; whether they have Inclinations to vomit, and Vomiting, and of what sort; whether they are disturb'd with Hiccups and Agitations of the Nerves; whether they are afflicted with a Cough and Difficulty of Breathing; whether they discharge their Wind and Excrements freely; what Colour the Excrements are of, and of what Consistence, and the like. Further, he may receive great Light, by a narrow Examination of the Body from Head to Foot, whether there appears externally an inflammatory Redness of any Part, or any Species of Eruptions, or any other Disorder: He should, likewise, inquire diligently, whether their Breath is hot; whether their Fauces are affected with Puslules, or their Gums with a Tumor and Inflammation: For from these, as from known Principles, he may securely draw Conclusions, with respect to what he wants to discover.

In explaining the Causes of the Diseases of Infants, we shall not deviate from the Truth, if we ascribe the formal and material Cause thereof, first, to a lax and soft Habit of Body, a redundant Plenty of pituitous Juices, and the exquisitely delicate Sensation of the Fibres and Membranes: For, since, in this first Age, the solid Parts, by reason of their excessive Softness and Tenderness, cannot propel the Fluids with sufficient Celerity, and drive them on through the minute Canals, the Circulation of the Blood and Humours may be easily retarded, and the most salutary Business of Excretion suppressed: If this happens, the Juices do not only increase more and more in Quantity, but become inspissated, and acquire a salino-acrid Temperature. From such a Plenitude of Humours proceed not only Stagnations, and various Corruptions of the retarded Fluids, but, from the Pressure and Distention of the subjacent Nerves, violent Spasms are excited; by the Vehemence of which, all, both the solid and fluid Parts, with the whole Oeconomy of the Functions, are disturbed; and

the tender Bodies of the Infants, which are very much disposed to receive even the slightest Impressions, are readily thrown into sudden and violent Disorders. From the Phenomena already related, it will be no difficult Matter to give the true Reasons of the principal Diseases in Infants. For, upon a Supposition of the Redundance and Stagnation of the pituitous Humours, it may be easily conceived, why this tender Age is subject to frequent catarrhus Defluxions, Rheumatisms, Oppressions of the Breast, liquid Stools, and Diarrhoeas, Tumors of the Glands, humid Sordes of the Ears, and the like Affections. Upon a Supposition of the Depravity and Acrimony of the Juices, it is very evident, why Children are often afflicted with the Thrush, and other Eruptions of the Skin: And, lastly, upon a Supposition of the exquisite Sensation of the nervous System, it clearly appears, why they are tormented with Contortions and Spasms, as well of the internal as external Parts, upon the slightest irritating Cause. For thus, on account of the sensible Texture of the intestinal small Fibres, they may fall into painful Gripes, very troublesome Distentions of the Stomach and Intestines, and dangerous Anxieties; and because the Membranes investing the Brain and spinal Marrow are easily irritated, they very frequently fall into epileptic Spasms, and convulsive Twitchings of the Extremities: Moreover, because the Lungs are furnished with very fine Ramifications of Nerves, these are frequently affected, and the Children very often labour under a convulsive Cough, and Asthma, so as to endanger Suffocation; and, lastly, because of the exquisite Sensation of the Membranes, which are spread internally in the Mouth, they are affected with violent Symptoms, from a Difficulty in Dentition.

Secondly, A predominant Acid has no inconsiderable Share in constituting the material Causes of the Diseases of Infants; and to this *Harris*, an excellent Author on the Subject of infantile Diseases, attributes so much, that he does not hesitate to deduce every Affection, familiar to that tender Age, from thence. For in many, both from the acid Smell of their Eructations, Vomits, and Excrements, it may be conjectured, or even sufficiently discerned, that not only the Milk, on which Infants subsist, easily becomes acid, and undergoes a Coagulation, but, also, that their Juices, which are thin and lymphatic, scarcely incline more to any Disposition, than the acid. For, as Men of a more advanced Age, endued with a phlegmatic Temperature, and turgid with a great Plenty of pituitous Juices, are more inclined than others to a noxious Coagulation of the Lymph, and very subject to that Species of Eruptions called *Purpura Alba*, which is thence generated; so is it the less to be doubted, but that, in Infants, an acid Intemperature of the Humours may much sooner and more easily happen.

Let us next inquire into the remote Causes: Now, if we consider the Debility of the Solids, we find that all Infants are in their own Natures altogether weaker than Adults, and of a more exquisite Sensation: There ought to be, however, some particular Causes, which may principally contribute to the extraordinary Weakness and Mobility of the nervous System, so that in some more, in others less, perverse Motions are excited. But nothing, in my Opinion, out of the whole Class of Causes, conduces more to this, than an hereditary Disposition, descended from one of the Parents to the Offspring. For this Reason it often happens, that Parents in an ill State of Health, or decayed thro' too frequent an Use of Venery, or too close an Application to Study, or worn out with Age, or corrupted with Luxury, propagate Children, who, from the first Act of Conception, are infirm, and have connate Defects, which no Art or Skill can cure. If this was not the Case, we should not have every-where so many gouty and calculous Patients, who, in vain, seek Relief for their Miseries from Physicians.

But, if any Distemper is transferred to the Child from the Parents, this, I conceive, proceeds principally from the Mother: For it cannot be expressed, how inclined many pregnant Women, unless restrained by Prudence, are, to Appetites altogether depraved; and how much they are agitated by unnecessary Cares, vain Desires and Imaginations, Terror, Fear, Sorrow, Passion, Pride, Love of Revenge, and other Commotions of the Mind: From whence the Circulation of the Blood must necessarily be disturbed in various Manners, and a certain Violence impressed, detrimental to the most tender, and, at this time, tremulous Stamina of the Fetus. The same Misfortune is to be feared, if the Mothers, given to Intemperance, overcharge their Stomachs with Food, and that often improper; or by spirituous Liquors often excite a Plethora, collected during their Pregnancy. To these we may add Women who are very subject to hysteric Motions, and, after Conception, often admit the Embraces of their Husbands; for too frequent Enjoyments of this Kind, according to some, are thought to conduce very much to the Generation of a sickly and weak Offspring.

In the very Birth, the tender Propeny is often debilitated, whilst the Mothers, either through Fear or Indolence, retard, or, thro' Impatience, accelerate, the Exclusion of the Fetus. The same happens from hot Remedies, promoting the Birth, or from the ignorant Performance of Midwives, by a violent Extraction of the Fetus, and some Injury or other thereby done to it, as

the Sutures of the Head, laxly united, are often compressed by those careless Women. Hence Epilepsies, Palsies, and other dreadful Symptoms, attended with Danger of Death, are excited.

In Children newly born, the tender small Fibres of the Nerves are, also, easily stimulated to anomalous Motions, if, at any time, they are either struck with an unexpected Terror, as by sudden Clamours, being awakened out of Sleep, or by jocose Impertinences of Nurses made by Words and Gestures; or if they who suckle them, being disturbed by any Affection of the Mind, especially Terror and Anger, give them the Breast too soon. Hence nothing is more common, than for Spasms of various Kinds, Vellications of the Nerves, Corrosions, Heats, griping Pains of the Intestines, and Inflammations, to follow immediately, which sufficiently manifest themselves by Inquietudes, Watchings, Agitations of the Hands and Feet, Startings, Cryings, and even by epileptic Convulsions.

But, besides these, in debilitating and disturbing the Strength of the Solids, much may be attributed to the excessive Intemperature of the Air, especially Cold, or the sudden Changes of Heat and Cold succeeding each other; which, as they are very prejudicial to Persons more advanced in Years, who are afflicted with a Weakness of the Nerves, by suppressing Transpiration, so do they much more threaten the most dangerous Consequences to Infants, who themselves know not how to guard against the Injuries of the Air. Nor, lastly, on the other hand, must we exclude a too curious, hot, and delicate Regimen of Infants, and a frequent Use of Physic without any Necessity. For thus Children, unaccustomed to the open Air, are not only incapable of bearing the least Breeze, but their very Constitution is, in general, greatly alter'd by Medicines, particularly the more active, and disturbed in regulating the Motions of the animal Oeconomy. And, since this is the common Practice of rich and noble Families, it is no Wonder, that their Children are far weaker, and more subject to Sickness, than those of mean Birth, who are brought up in a manner directly opposite.

But all these Things have their Effects, not only on sucking Children, but, also, are to be understood, in the same manner, of those something older: For the Strength of the Solids being impaired, and a Disposition to Distempers contracted either in the Mother's Womb, or from a Fault in the Nurse; it is obvious, that neither less nor fewer Diseases may succeed, after they are weaned, as, to our Sorrow, numberless Examples of distemper'd Infants fully demonstrate.

The Causes, which conduce to the Generation of a Redundance of Acid, are again various, some of which we have already enumerated. But to these should principally be referred every thing, which corrupts the Milk, either in the Nurse, or the sucking Infants, and makes it gross and impure, or entirely condensates it into a Curd. On the Part of the Nurses, this may happen several ways, and principally, if they indulge inordinate Passions of the Mind, eat plentifully of Summer Fruits, Cheese, Salads, acid, acrid, and salt Food, and drink too freely of sour Wines, and Brandy, or Spirits of Wine: For by these the Milk is render'd viscid, and gross; which, when given to Infants, soon grows acid, and not only disposes to obstinate Obstructions of the Primæ Viæ, and Mesentery, but, also, greatly promotes a Generation of the Stone in the Bladder, which is not uncommon to this Age; not to mention, that by too free an Use of spirituous Liquors, the Milk suddenly conceives an Heat, and, being transmitted thro' the Breasts to the sucking Infants, may excite burning Fevers. Nor is the Quality alone, but the exceeding Quantity of Food, also, prejudicial; whilst Nurses stuff themselves beyond measure with Meats, tho' the best, or drink too thick Malt Liquors, and but sparingly of them, and do not use sufficient Exercise, but rather live in a State of the utmost Idleness; by which means a thicker Consistence cannot but be produced in the Milk, and a Loss of Health occasioned. Violent Cold, carelessly admitted to the Breast, has the same injurious Effect, as, by contracting the Tubes of the Breasts, which convey the Milk, it greatly disposes it to inspissation. Besides, this milky Liquor is altered in an extraordinary manner, and disposed to receive a vitiated Disposition in the Stomach of sucking Infants, if the Mothers or Nurses admit the unseasonable Embraces of their Husbands, while they give Suck, or if their Menstrues, which ordinarily cease in pregnant Women, and those who give Suck, begin to flow: For then the Children generally become languid, full of Tears, and weak, and seem by their Gestures to indicate sufficiently, that Sucking should be deferred, till these cease, and the Mother recovers her former Vigour. Nor, lastly, is the Milk a little corrupted, when the Nurse is subject to Hysterics, or afflicted with a Colliveness; and from Spasms and Flatulences, collected in the Primæ Viæ, various Accumulations of Blood and Humours are produced in various Parts of the Body.

On the Part of the Infants, many Things, likewise, will produce the same ill Effects: But they are principally affected, when they take too much Aliment, and when, being out of Temper, they are obliged to suck against their Inclinations, or are over-stuffed with viscid Pap: For when Infants, and those especially, who are tender and small, cannot digest so great a Quantity; this

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frequently generates acid Fæces, from whence the Tone of the Stomach and Intestines is destroy'd, and cardialgic Inflation of the Stomach, Strainess of the Breast, and the like, are induced, which greatly interfere with Health. To this Purpose, *Etmuller*, in his Dissertation, intitled, *Valetudinarium Infantile*, has truly said, "Mothers often destroy their Children by feeding them too much with a superfluous and almost coagulated Milk: For all excessive Repletion, as of Bread to Adults, so Milk to new-born Children, is very detrimental." It is, likewise, a very great Error, to feed them with Varieties of Meats, and those often incongruous, acid, acrid, or salt, and with much unnecessary Flesh, or to give often Wine, as the Custom is, in order to strengthen them, and quiet their Cries; for these Mixtures, with the Milk, by causing a Coagulation, very much weaken the Stomach, and produce many Distempers. To this may be added, the frequent Change of Milk and Nurses: For, as Adults cannot well bear the Alteration of Meat and Drink, so, for the same Reason, is it to be expected much less in the tender Bodies of Infants.

All these Errors, in the time of Sucking, generally pursue and affect Children, after they are weaned, or, at least, exert themselves at that very time, especially when, neglecting all Rules of Diet, they suddenly pass from a thin to a more gross Aliment, to eating of Flesh, and other improper Aliment.

With respect to the Prognostic; I must first remark, that Infants, who have not been generated by tender, delicate Parents, nor those distemper'd both in Body and Mind, especially Morblers, are usually more firm in Body and Mind, more brisk and robust, than others; nor do they suffer so easily from external Causes; nor are they so readily affected with Diseases; and, when they are, the Cure is more successful. I apprehend, the same Prognostic might be made, with respect to healthy Children, who are not confin'd exactly and nicely in their Diet and Regimen, but accustomed to successive seasonable Alterations: For they may be so formed, and, as it were, hardened from their Infancy by Custom, as not to be so easily affected by external Injuries; which is very evident from the Children of Rustics, and poor People, who neither so suddenly contract Diseases, nor are afflicted with such violent and lasting Distempers, as the delicate Infants of Persons of Distinction. Farther, it must be observed, that all Diseases of Infants, though they are innumerable, may be more easily cured, than those of Adults, especially if they are properly treated: For, as the very tender Bodies of Infants readily receive a noxious Impression from unsalutary Things; so, on the contrary, they very soon are susceptible of a better from Medicines and Things agreeable to Nature; so that there would be no Necessity to lament the Death of so many Children, if Physicians did not often procure it by Misconduct. Besides, it is a constant Observation, that Infants who are corpulent, and have a spongy Flesh, and eat large Quantities of Milk, or have a Nurse full of Juices, and corpulent, are more frequently afflicted with Disorders than others, and are principally subject to the Rickets, convulsive Cough, and Thrush; whilst, on the contrary, those that are lean, more frequently fall into Fevers and Inflammations. Those that are laxative, generally enjoy a better State of Health, than those who are colicive. And, lastly, since convulsive Twitchings of the Extremities, and Gripes, deprive most Infants of Life, it must be observed, that it is a very bad Symptom, if these are attended with long-protracted Watchings.

THE REGIMEN OF YOUNG CHILDREN.

Whoever would avert the more violent Diseases of Infants, should be particularly cautious in removing, from the first Moment of their Birth, all the Causes, which are capable of generating Distempers, and exposing their tender Bodies to Danger. I hope, therefore, it will be of some Importance, briefly to lay down some Rules for the Direction of the Diet, Regimen, and other Non-naturals, as well with regard to the Infant, as the Nurse; lest, from an imprudent Use of these, innocent Children should too early lay a Foundation for future Disorders, without any Fault of their own; and, in their very Infancy, contract the Principles of a weak Constitution. And this seems the more necessary, in order to prevent Repetitions; for there are some general Precautions, which may hereafter be apply'd to some Use, in the particular Explication of several Diseases.

As soon as the Child is brought into the World, it ought, immediately after the Ligature, and cutting of the umbilical Vessels, to be washed in a warm Bath, prepared of Water alone, or a Mixture of Wine and Water; which is attended with this Advantage, that it promotes an equal Distribution of the Blood thro' the whole Body. The Midwife, too, should be allowed a convenient Place and Time, that if there appears, in the Head, or any other Part of the Body, any thing ill-formed by the Birth, she may fashion it better, and restore it to its natural Shape. Let her, therefore, examine every Limb by gentle and frequent stroking them; and often contract and expand the Legs and Feet, that whatever Mucus, or Lensor, resides in the Articulations, may be dissipated: She should, likewise, often stroke the Belly with the Hollow of her Hand; and, by gently rubbing the Parts destined to Excretion, excite them to a Discharge of the Fæces.

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But, above all, she must observe, whether the Child is strong and robust, or weak and infirm. This may be discovered from its weak Voice and Respiration; or, if the Mother is of a tender and morbid Constitution, and, in the Course of her Pregnancy, was affected with various Disorders of the Body and Mind, if the Motion of the Fœtus, while in the Womb, was weaker than it ought to be, or if the Birth was difficult, and happen'd before the usual time, in the seventh or eighth Month, we may conclude the Child to be weak: For Infants are, by all these things, debilitated, and rendered subject to Diseases; whilst, according to the wise Maxim of *Celsus*, Weakness paves the Way to all Distempers. If the new-born Infant, therefore, is, from these Symptoms, concluded to be preternaturally weak, it is proper to refresh it, which is best done, after the received Practice of Midwives, by washing it with warm Wine, rubbing it gently, anointing the Breast, Back, and Vertex, with some analeptic Spirit, or by breathing strongly into its Mouth, after chewing aromatic Cloves, and other Aromatics, or giving it a small Quantity of *Rhenish* Wine, or Cinnamon-water.

But as the tender Infant must be secured from the Injuries of the Air by soft Linen, and commodious Bandages, great Caution is requisite, lest out of Negligence, or Ignorance, some Damage be done, and a Foundation laid for future Disorders: For, besides that Infants frequently become gibbous from too great a Stricture of the Breast by Bandage, and fall into a Consumption, or often vomit, and are subject to Ruptures, many Inconveniencies, on account of obstructing the Circulation, and excessive Crying, proceed from too strict a manner of binding the Body of a tender Child.

Having observed these things, the next Care is, that Infants, who, for want of a Discharge by Stool in the Womb, bring into the World their Intestines replete with many Excrements, be seasonably purged: And now, as soon as they begin to breathe, and draw the circumambient Air into their Lungs, by that mutual and frequently repeated Action of the Diaphragm and Abdominal Muscles, the Stomach and Intestines are not only compressed, and the Fæces, contained in them, disposed to be discharged, but, also, by this salutary Act of Respiration, the Bile is forced into the Intestines, and particularly the *Duodenum*, which, then, from its detergent and stimulating Quality, which is very powerful, by gently irritating the sensible Membranes of the Intestines, excites them to a greater Contraction, and a Discharge of the Fæces; so that those tenacious Excrements are often ejected by spontaneous Vomits and Stools. But if this does not happen, and the weak Nature of the Infants is not sufficient of itself, Providence has kindly furnished the Mother, at first, with thin, serous, sweetish Milk, termed *Colostrum*, whose detergent and diluting Quality opens the Body much better and safer, than the most select Evacuants. And, though many Physicians advise to reject this *Colostrum*, as an impure Milk, and very prejudicial to the tender Stomach of Infants, my Experience convinces me, that no Danger is to be dreaded from it, unless that milky Liquor flows from an impure Spring, when the Woman, after Delivery, is either infected with any Contagion; or, immediately before the Birth, was afflicted with some violent Distemper; or, under the Difficulty of the Birth, agitated by convulsive Motions, and is still indisposed; or unless any other Circumstances concur, which forbid the Use of such a Medicine elaborated by Nature in the Breasts of Women.

But if the Nipples of the Mother's Breast are so small, that the Child cannot conveniently keep them in its Mouth, nor draw any Aliment from them, but by violent Attraction; or if they are so thick, that he cannot receive them; or if the Mother, after Delivery, has not a mind to give Suck, or has not Milk in her Breasts soon enough; then it is absolutely better, for the first four-and-twenty Hours, that the Body should be freed by other succedaneous proper Laxatives, from its *Meconium*, than immediately after the Birth to deliver the Infant to a robust, fat Nurse, to be suckled. For, since the Milk of Women, who have given Suck for a long time, is generally of a grosser Disposition, and contains a large Quantity of alimentary and pinguious Substance, the tender Stomach must necessarily be overloaded with it; and from thence a more ready Opportunity given for an acid Crudity, and the Coagulation of the Milk. But there are several Methods of promoting Stools: Thus the Vulgar, in *Germany*, both from Custom, and the Advice of Physicians, give Honey, with unsalted Butter, or Barley-sugar, with Oil of sweet Almonds, the first Days after the Birth. The *French* and *Dutch* prescribe Wine, sweetened with Sugar; others give other things for the same Purpose, with very good Success. But, as these do not always answer the End, the following more effectual Cathartics may be exhibited in a small Quantity, as solutive Syrup of Roses; or Succory, with Rhubarb, of Peach-flowers; Manna, with some Grains of Cream of Tartar, in Broth, and the like. Nor do I disapprove of their Practice, who with the same View of procuring Stools, recommend gentle Suppositories, or, when these fail, Clysters. For the *Intestinum Rectum*, in Infants, is of so exquisite a Sensation, that, upon the slightest Vellication, it soon parts with the contained Excrements. Whence

Boerhaave, in *Aphor. de cognoscendis & curandis Morbis*, 55. 1347. judiciously advises, to inject a Clyster of Whey, with Soap or Honey.

There are, however, some Physicians, who object against this early purging off the Meconium; because it is not necessary to discharge this out of the Body, before it has acquired an Acrimony, and Tendency to do Prejudice; but it can never be proved, that these Excrements of Infants, which remained for so many Months in the Intestines without any Detriment, should be immediately discharged, as noxious, by a Cathartic. And, indeed, upon an accurate Inquiry, we find, that there is not that acrid and venomous Quality in the Meconium, as is generally thought; for it is contained, for several Months, in the very tender alimentary Tube; and yet does not produce an Inflammation, or Corrosion, of the Intestines, or excite them to discharge it, nor stimulate the Colon, where it principally resides; nor does it, on account of any contracted Putrefaction, emit fetid Flatulences and Exhalations; nor is it dried with Heat, but, as the Dissections of Infants, dying immediately after their Birth, shew, has the Consistence of Honey, and is without Smell. And though I, with good Reason, reject a premature and forced Purgation of Infants, yet I think we should act otherwise, when they neither can by their own natural Strength, nor the Assistance of the *Colostrum*, discharge the impure Sordes remaining from the Nutriment received from the Mother; for then it is absolutely expedient to assist them with a gentle Stimulus, especially since we have known, that violent Gripes, Inquietudes, Watchings, cardialgic Passions, Ruptures, obstinate Costiveness, convulsive Motions, and other Symptoms, have arose from too late an Evacuation of the *Meconium*, because these Excrements not only very tenaciously adhere to the Coats of the Intestines, and often, as it were, glue them together, but, also, upon the Access of Milk to them, even the best, assume a very different Nature, and that very prejudicial; whence many Women are induced to suffer their new-born Infants to fast for twenty-four Hours; and in the mean time give them Honey and Butter, lest the Milk, the Body not being yet purged, should coagulate into a Curd.

These things being observed, a proper Diet, and due Regimen, should be directed for Infants: But Milk deservedly constitutes the principal, and, as it were, universal Aliment, because it supplies both Meat and Drink at the same time, is grateful to the Stomach, and for this Purpose was it wisely ordered by the Creator, that healthy Women, immediately after their Delivery, should accumulate a sufficient Quantity of it in their Breasts. But, since Infants are nourished by the Breasts, either of their Mother, or an hired Nurse, it is certainly the Duty of Parents, and those entrusted with the Health of Children, to take care, that they generate pure and temperate Milk. This is best obtained, if Women, who give Suck, observe an exact Method of Diet, and avoid all those things, which communicate any Taste to the Milk, even imperceptible to the Senses, and especially such as are noxious, and capable of producing Distempers. Particularly let the Nurse, if there is a Necessity for one, be healthy, in the Flower of her Age, from twenty to thirty, rather lean than fat, of good Morals, composed in Mind, neither melancholic, passionate, nor a Drunkard; nor, lastly, let her Milk be too stale. Farther, let her observe a regular Diet; and, since Women, who are poor, and in a mean Situation of Life, generally undertake this Business, great Care must be taken, that they do not, at once, pass from their former Method of Living, or from an hard and sparing Food, to one which is delicate, soft, and plentiful; but let them rather accustom themselves to it by Degrees. If, at any time, they are deprived of their Sleep, in the Night, by the Restlessness of the Infants, let them recover that Loss in the Morning; yet, with this Caution, that they do not indulge it too far, and lead a lazy, idle Life.

He that considers these things, will soon find, how blameable those Mothers are, who, without any Danger, either from an Impurity of the Humours, and want of Strength, or any other Reason, deliver their tender Progeny to mercenary Nurses, with a Barbarity exceeding that of the Brute Creation, and do not so much as consider, whether they hire an healthy, or an unsound, a virtuous, or a wanton Nurse. It is no Wonder, then, according to the Testimonies of the most approved Authors, that Infants are often affected with Ulcers, the Itch, scald Heads, Achors, and other cutaneous Disorders, by Nurses, whose Diet is irregular; or, if the Nurses are afflicted with the Venereal Disease, that the Children contract the same; or, as I have often observed, are contaminated with Pustules, and crustaceous Eruptions, and a thousand other Infirmities. And since not only Defects of the Body, but of the Mind, also, are communicated by the depraved Milk, it certainly is not uncommon for Children born of the best Parents, sometimes, to be corrupted with the worst Morals. Thus I have known Infants rendered Drunkards, by sucking the Milk of a Nurse addicted to drinking. Nor do many Authors search for any other Origin of the Drunkenness and Cruelty of some great Men, than Nurses tainted with the same Vices. *Wirdig*, in *Medic. Spirit. Lib. 1. Cap. 25. 56.* has a very

very remarkable Passage to this Purpose: Children, says he, nursed by strange Milk, usually degenerate, and assume the Nature of their Nurses; from the Milk and Spirits of their Nurses, they assume the Natures and Morals of their Nurses: The wildest Animals are tamed by human Milk, from the mild Spirits which they suck in with the Milk; as, on the contrary, Men fed with Beasts Milk become bestial and fierce, as appears from *Romulus* and *Remus*.

The Quantity of Milk to be sucked cannot be exactly determined; but the general Practice of Women is, to give the Child the Breast, for the first Month after its Birth, every two Hours; after three or four Months, six or seven times, and at last only twice or thrice, in a Day, till the Year is completed. But here, in general, I would observe, that Women should be cautious of giving the Breast too often, and unnecessarily, but rather, by all means, when they are too greedy, remove them from it, because they are ignorant what Quantity they ought to take; otherwise those Symptoms may arise, which have been mentioned above.

It often happens, that the Temperature of the Milk is corrupted by various Causes: Precautions, therefore, are necessary to prevent impending Danger. But the Milk, as we have already observed, is most of all vitiated by a Terror of the Woman, who gives Suck; and, consequently, the best Preservative against the Injury hence arising is, not to give the Breast immediately after a Fright. The same holds true with respect to Anger: And since the Injury done to the Milk by violent Passion, upon a long Continuance in the Breasts, endangers both the Child, and the Nurse, to prevent this, the Milk should be seasonably extracted. It sometimes, also, happens, that either the Infant is incapable of sucking the Milk out of the Breasts, or the Nurse, from Illness, or some other Cause, of affording it. In this Case other proper Aliments should be provided; amongst which are to be accounted sweet Whey, Barley-broth, Water-gruel, Emulsions of Almonds, or Barley boil'd to the Consistence of a Pulp, with the Addition of the Yolk of Eggs, and the like.

The same things are proper, and may be used, if the Milk alone is not sufficient to support the Child; though there are other Aliments contrived for this Purpose, suited to various Countries and People. The most common among us are, several Kinds of Paps, made of Flour, or Crums of Bread, boiled with Milk or Water, and reduced to a tenacious, and glutinous, and viscid Consistence. But whether Infants, especially the very tender ones of Families of Distinction, on account of the Debility of the Stomach, are capable of dissolving perfectly this viscid Food, is what I very much doubt, and rather think, that by them the Way is often paved for Obstructions of the Viscera and Mesentery: Thus *Hildanus, Cent. 6. Obs. 34.* observed a desperate Obstruction of the Pylorus from the Use of such Pap. Much less ought a weak Stomach to be overcharged with such Aliment, or a fresh Quantity of it again exhibited unseasonably, before the former Aliment is digested; because we have made it appear, that, by this means, the Infant is greatly injured. Nor can I approve of that pernicious Custom of some Women, who give Children Pap, rolled first in their Mouths, and mixed with the Saliva; for though this Mass, impregnated with the Saliva of an healthy Mother, may seem more easily convertible into Chyle, agreeable to the tender Age of the Child, I cannot heartily approve of it, for the following Reasons; because, by such Mastication, not only the most subtle Part of the Pap is suck'd out, and consumed, but, also, any Infection of the Saliva, and corrupted Teeth, which, from the great Subtlety of the foreign Matter, are scarce perceptible, are easily communicated to the Infants.

When Children, under this Diet, are arrived at such an Habir, that they seem fit to take and digest other Aliments, which happens within the Space of a Year, or something more, they may be weaned: But, at that time, no less than before, great Care should be taken, that the Misfortunes, hitherto escap'd, do not oppress the tender Patient; but principally a large Quantity and Variety of Food, and Aliments of an hard Consistence, should be avoided. Thus Food too salt, viscid, austere, acid, and pinguious, too plentifully taken, and not well concocted, produce a greater Increase of acido-viscid Crudities. So likewise, in Summer, Prejudice is done by crude and immature Summer Fruits, which commonly conceal, in the Contexture of their Particles, a latent Acid, which, by irritating and spasmodically afflicting the Fibres of the Intestines, may excite Diarrhoeas, Dysenteries, Gripes, and other Symptoms, particularly at the Approach of Autumn. The same Consequence attends Bread not duly fermented, or too new, not excluding sugar'd and sweet things, by which the Chyle easily degenerates into viscid Faeces, by which Worms, Gripes, Hardness of the Belly, and other troublesome Symptoms, are induced.

It now remains, that we briefly enumerate some Preservatives. I have found nothing more useful for the Prevention of the Diseases of Infants, than to give often, not only to the Nurse, but the Child also, in a large Quantity, Infusions of Herbs which sweeten the Blood, made with Water: For this Use I cannot but

earnestly recommend an Infusion of Betony, Root of Viper-grass, Liquorice, Fennel-seed, and the like: For thus the Milk is render'd thin and fluid, so that it cannot obstruct the small Vessels; but may be more freely convey'd through all the Tubes of the Body, and the winding Ducts of the Glands. Nor do they act amiss, who, sometimes, after a Meal, eat a Quantity of Seeds of Fennel and Anise, which increases the Milk, and prevents Gripes in the Infant.

Since the Milk, stagnating in the Stomach and Duodenum, soon grows acid, becomes corrosive, and is coagulated, and thus excites a thousand dangerous Symptoms; it requires the utmost Care and Diligence, to prevent this so dangerous Coagulation of the Milk: For which Purpose Powders are extremely efficacious, which contain Crabs-eyes, Egg-shells, the Root of *Florentine* Orris, Saffron, the Seeds or Oil of Anise, Sperma-ceti, Cinnabar, and a Solution of Crabs-eyes; of which a Dose may properly be exhibited twice or three times a Week. But, since the Health of Infants greatly depends, also, upon a due and sufficient Discharge of the Excrements by Stool, and a Preservation of the Tone of the Stomach and Intestines; sometimes gentle Laxatives, if necessary, should be interposed, by which the Injuries from coagulated Milk are, likewise, in a great measure, prevented.

But I here affirm, that all strong and acrid Purges, as Resin of Jalap, Scammony, black Hellebore, and the like, are improper, and absolutely pernicious, to Infants; as they dispose, not only to Gripes and Costiveness, but, also, to Atrophy, and convulsive Affections. Let Infants, likewise, abstain from Aloes; because of the two great Heat, and Ebullition, which it excites; and, also, from the Leaves of Sena, because, by the more Remedies the Belly is irritated to Excretion, the greater Difficulty, afterwards, of going to Stool, and Costiveness of the Belly, follow: Nor are these Things prejudicial only, when given to the Children, but, also, when given to the Nurses; for, being mix'd with the Milk, they often excite Convulsions in the tender Infants: Hence *Sydenham* rightly says, The Epilepsy of Children often attacks them, in the first Month, from too frequent Stools; and *Galen*, in his Time, justly asserted, that the Bodies of Children ought not to be exsiccated with Purgatives, which would prevent their growing. And, really, it is inexpressible, how much the tender and weak Stomach of new-born Infants is prejudiced by Purgatives: For these Medicines, from their Acrimony, with which they abound, irritate the Fibres, dispose the Stomach and Intestines to spasmodic Strictures, and, at last, deprive them of their Tone and Strength; so that, then, Digestion being deprav'd, the Milk easily grows acid, and is corrupted.

I justly, and with very good Reason, esteem Remedies of Mercury, however prepared, especially when given to sucking Infants in Powder, and in considerable and repeated Doses, to be deleterious, and highly prejudicial; partly because, by their Gravity, they firmly adhere, in several Places, to the Folds of the Stomach and Oesophagus; and partly, because, by the Addition of a more acrid Bile, and corrosive Acid, they assume a more violent and corroding Nature: From whence the Tone of the Intestines is not only surprisngly injured, but a Foundation laid for such Distempers as arise from the Weakness of the nervous System, and Spasms; and the more so, if they are injudiciously given to Infants, who have a Collection of corrosive Humours in the Primæ Viæ, which may be known by the Greenness of the Excrements. The same Effect have other metallic Remedies, as Aurum fulminans, Preparations of Iron, Copper, and Antimonials, as *Mercurius Vitæ*, and the like; which ought, certainly, to be used with the utmost Caution, because they are very treacherous and dangerous Remedies, which, as they are resolved by the Humours residing in the first Region, exert their Operations, either in a more gentle, or violent manner, and, for the most part, almost destroy the tender Patient.

But, farther, not only the preceding violent Medicines lay a Foundation for bad Symptoms, but even the more gentle cathartic Syrups themselves, and Powders, given too often, and in too large a Quantity, frequently affect the tender Bodies of Infants very much. Upon this Subject let us consult *Cardan*, who, *de malo recentium Medicorum medendi Usu, Cap. 48.* so very severely reprehends the Practice of the Physicians of his own Time, for giving Syrups and Powders. "It is an Error, says he, when to new-born Infants, with a View of relieving them, some advise Syrups, some Powders, and others, other things; for it is evident, that their tender Constitutions ought not to be changed by any Quality, either purgative, or astringent: For their very tender Composition of Members can scarcely bear any thing but Milk, without Injury." Oil of sweet Almonds, likewise, mixed with Sugar, often administer'd, is not absolutely free from ill Consequences, as *Harder* assures us, in *Aplario Obs. Med. 99.* where he relates, that a certain Infant, to whom the Women often gave Oil of sweet Almonds, mixed with Sugar, from its Birth, being seized with almost continual Gripes, and, at length, with an Epilepsy, died in a few Weeks; and that, upon opening the Body, there were found in him, not only green Excrements, such as he had discharged, whilst alive; but

but the inferior Part of the Ilium was, also, affected with a manifest Gangrene. And *Weissus*, in his Dissertation *de Abusu Purgantium in recens natis*, furnishes us with an Instance, much of the same Kind, of an Infant who died of the like Disorder, by taking Oil of sweet Almonds every other Day.

OF GRIPEs AND FLATULENCES IN CHILDREN.

Of all the Afflictions which torture tender Infants, violent Pains of the Abdomen, and Inflations, most frequently occur; which shew themselves, principally, by these Signs: First, The Patients, being very unquiet, toss and twist themselves into Variety of Postures, and kick with their Feet; are averse to the Breast, and almost continually crying; the Belly is visibly turgid with Flatulences, and their Respiration is short and difficult; Eructations, sometimes, burst impetuously out of the Mouth; the Belly is generally costive; or, if they have Stools, the Excrements are generally viscid, tenacious, more or less tinged with a green and æruginous Colour; or fluid, like Water, and yellow, and sometimes grumous, like the indurated White of an Egg; and sometimes so acrid and corrosive, that the Anus is excoriated, and a perpetual Tenelmsus excited.

The immediate Causes of these excessive Tortures are, principally, the spasmodic Strictures of the intestinal Membranes, which are of a nervous and very sensible Nature: By these Strictures, continuing for a long time, the natural Strength, Tone, and peristaltic Motion, are so weaken'd, and depriv'd, that the Excretions, both of the Flatulences and Excrements, are not only retarded, but, also, the Digestion, Correction, and due Secretion, of the Aliments is impeded: And, tho' these intense Strictures and Crispatures of the nervous Membranes are very painful of themselves; nevertheless, because the Flatulence, or subsequent Effect of the Spasms, induces a great Distention of the Intestines, it necessarily follows, that the Economy of all the Functions in the whole Body is surprisngly disturbed.

The mediate Causes of these Affections are generally violent Commotions of the Mind, by Anger, Terror, Fear, and Sorrow, in those who give Suck; which, first of all, and immediately, exert their Power on the nervous Parts of the Body, principally of the Stomach and Intestines, perverting their natural and equable Tone, either by too great Relaxation, or Stricture: And whenever Mothers, during their Pregnancy, are often, and violently, seized with these pernicious Perturbations of Mind, the Infants, directly from their Birth, are more severely, and for a longer Continuance, affected with excruciating Pains of the Belly.

Acute Pains, and Spasms of other Parts, are no uncommon Causes of Gripes, and Inflations: Thus, frequently, troublesome Flatulences of the Belly, and Gripes, with preternatural and undigested Stools, attend a difficult and painful Dentition of Infants. A careless Admission of Cold to the Belly and Feet, by which a free Transpiration is not only hinder'd, but the very Texture of the nervous small Fibres injured, and disposed to cause Stagnations, also, frequently excite these Disorders.

It very often happens, likewise, that a too frequent Use of Laxatives, and, much more, an incautious Use of Purgatives, lay a Foundation for such Disorders; and this I may observe to be the Case, not only of Infants, but Adults; for sometimes, when the latter, upon perceiving an Heaviness, have been treated with Purgatives, they have not only been tormented with insupportable Pains of the Belly, but have often had their Bellies tumefied and inflated, like dropical Persons; so that the highly sensible alimentary Duct could afterwards scarcely, with the utmost Care, be restor'd to its natural State.

If we examine into the more remote Causes, we find that griping Pains of the Intestines often proceed from the Mecoconium being too long retain'd, and not sufficiently purged off by the Colostrium, or some other gentle Evacuant; since this, accumulated, distends the Fibres of the Intestines, excites Flatulences, and, being render'd more acrid by the Milk, stimulates the sensible Membranes of the Intestines, so as to excite a painful Stricture. Another Cause may be, the Milk itself corrupted in the Primæ Viæ, growing acid, and collected, as it were, into Globules, which, by a Mixture of the Bile, and gastric Juices, assuming a caustic Nature, pricks, corrodes, and, as it were, tears the Intestines. But this noxious Acrimony of the Faeces, and acid caustic Disposition, shews itself sufficiently, not only by the green Colour, with which they are tinged, and their Corrosion of the Vessels, into which they are receiv'd, when discharged; but, particularly, by an Experiment, in which the green Colour of the Excrements is changed into yellow, by an Addition of Oil of Tartar per Deliquium; to say nothing of Dogs, who, otherwise, readily devour the natural Faeces of Infants, but will not touch these green Excrements.

Lastly, In Infants, especially after Weaning, Summer Fruits, Aliments prepar'd with Honey, too much Sugar, and other things, with which Children willingly overcharge themselves, contribute very much to induce spasmodic Pains of the Intestines: For hence, a Fermentation being rais'd in the Primæ Viæ, very acrid Juices are readily generated, and upon Anger, and taking cold, a large Quantity of useless Sordes is accumulated; whence

Anxiety about the Præcordia, Vomitings, violent Pains of the Intestines, and bilious Fevers, are excited.

As to the Prognostic, the following Circumstances seem most worthy of Observation: The longer these exquisite Gripings of the Intestines continue, and the more frequently the sensible Bodies of tender Infants are affected therewith, the more severe and dangerous they usually are: For Fevers, Palsies, Asthmas, epileptic Convulsions, and other mortal Symptoms, are easily associated with them, which, if they are not soon check'd by convenient Remedies, quickly destroy the miserable Patients: Nor, in prognosticating the Event, is it of small Moment, to consider the Condition of the affected Subjects: If they are descended from weak Parents, and Mothers disposed to hysteric Spasms, it is to be feared, the Disorder will affect the Infants more violently, and return more frequently.

THE CURE.

The principal Intention of the Physician, in order to cure the griping Pains of Infants, is to absorb, correct, and gently evacuate, the corrosive Acid of the Primæ Viæ: For which Purpose, if the Disorder, as it generally happens, is caused by corrupted or vitiated Milk, it is extremely necessary to change the Nurse; or great Care must be taken, that she does not, at that time, indulge herself with flatulent Food, Summer Fruits, Pulses, Wine, Acids, or feculent Aliments; because, by all these, the Affection is either much increased, or render'd more obstinate. At that time, also, gentle Laxatives, if she is costive, are proper for the Nurse: Among these I would, principally, recommend Preparations of Rhubarb: Thus, for Example, half a Dram of the Extract of Rhubarb, dissolved in half an Ounce of the Liquor of Terra Foliated Tartari, and Cinnamon-water, may be taken Morning and Evening, in the Quantity of sixty Drops, or more. Nor, at this time, are carminative Medicines less beneficial to the Nurse; and Infusions, after the manner of Tea, drank in a large Quantity; as they are of great Efficacy in diluting and resolving the Thickness of the Milk: But, for the Infants themselves, to temper the Acid lodged in the Primæ Viæ, I must recommend the following Powder, as of experienc'd Virtue:

Take of Crabs-eyes, Mother of Pearl, diaphoretic Antimony, the Root of *Florentine* Orris, each half a Dram; Saffron, three Grains; Oil of Anise, and of Mace, each two Drops: Let five or six Grains be taken every two Hours, in a Decoction of Hartshorn; or in some antispasmodic Water, as that of Lime-flowers, of black Cherries, or Baum, with a little Diacordium.

But nothing relieves more than Clysters, which both, by their kindly Warmth, relax the Spasms of the Intestines, and remarkably dissipate and carry off the Flatulences, which are the Cause of, or, at least, accompany the Gripes. For this Purpose I have often, with great Success, prescribed Clysters prepar'd of Marjoram, Chamomile-flowers, carminative Seeds, thin Water-gruel, and a sufficient Quantity of Oil of Chamomile; or a sufficient Quantity of a Decoction of Dill, render'd more efficacious by the Addition of a few Drops of the Oil of Anise. The same Intention is excellently answer'd by the internal Exhibition of Preparations of Rhubarb; such as Syrup of Succory, with Rhubarb: The Medicine before prescrib'd for the Nurse, exhibited in a small Dose, and an Electuary, prepar'd of equal Quantities of Rhubarb, and Crabs-eyes, together with solutive Syrup of Succory, or Roses, and the Addition of a proper Quantity of Manna; to be taken in Barley-water. And I cannot, in this Place, but approve, and greatly commend, the Method of *Hennius*, who, in *Method. ad Praxin, Lib. 2. Cap. 26.* asserts, that he had found by Experience, that, by one Scruple of Aniseed, pounded in a gross manner, new-born Children were most commodiously cleansed from green Bile, and fetid Phlegm, and, at the same time, that the violent Pains of the Belly were quieted, if it was given with the first Spoonful of sugar'd Pap.

If there is a Suspicion of Worms breeding in the Intestines, it is proper to give the Remedies, which, under the Article VERMES, we shall shew accommodated to kill and dislodge these hostile Animals.

External Remedies should, also, be applied, against the Violence of this Disorder: For this I would recommend Emollients; such as the Flowers of Chamomile, Elder, Melilot, and Mullein; the Seeds of Fenugreek and Dill; as, also, Saffron, boiled in Milk, and applied to the Abdomen, either in a Swine's Bladder, or in a Linen Cloth: Nor is it an improper Piece of Practice, to anoint the Region of the Navel with distill'd Oils of Cumin, Caraway, Anise, Chamomile, and Fennel; or the exprell'd Oil of Nutmeg, or Oil of Chamomile, prepar'd by boiling, mixed up with some Lard.

As for the necessary Cautions in this Disorder; Care must be taken to abstain from all salt, acrid, and strongly stimulating things, especially Purgatives; for it is very dangerous to convey the highly acrid Sordes, before they are duly corrected, through the long Canal of the Intestines. But resinous things are endued with highly noxious Qualities, such as Resin of Jalap, which is most

most imprudently administered to Children subject to Disorders, in consequence of their sucking corrupt and acrid Milk; and though this Resin sometimes discharges a large Quantity of Humours, yet it proves highly injurious by its continued Stimulus, and Irritation of the Intestines. Purging, which, however, is rarely requisite, is much more safely performed by the Powder of white Mechoacan, exhibited with some proper Syrup: After which the Sordes collected in the Stomach and Duodenum are to be corrected by Absorbents and Correctors, and eliminated by Preparations of Manna, or Rhubarb, or by means of Clysters.

These Gripes of the Intestines are often produced not so much by a material Cause lodged in the Primæ Viæ, as by a violent Agitation of the Nerves, from an acute Pain, for Instance, in other Members, in consequence of the Consent of the Parts: In which Case, laying aside all Laxatives, the first and principal Intention of Cure is, to sooth and alleviate the Pains and Spasms.

No Medicines, as we have already observ'd, are more justly commendable for the happy Effects they produce, than Clysters; since they immediately reach the Intestines, and afford great Relief, as well by quieting as dissipating the Flatulences, if the Intention for which we inject these warm Fomentations, is attended to, so that in preparing them we make a proper Choice. For thus, if the Excrements discharged by Stool, are liquid, and so highly acrid, that they not only occasion violent Gripes, but, also, an Excoriation of the Anus, Clysters of Milk and Sugar are serviceable, or Turpentine dissolved in the Yolk of an Egg, which, by moderating the Acrimony, prevent the Corrosion of the large Intestines, and the Anus. But if a viscid Sordes, lodg'd in the Intestines, lays the Foundation for Gripes and Flatulences, Clysters, endued with a greater Power of resolving, should rather be used, which, by stimulating the large Intestines, cause the Mucus, which lodg'd in the rest of the Intestines, to descend afterwards more easily. For this Intention a Clyster may be prepared of one or two Ounces of a Decoction of Chamomile-flowers, with the Addition of a Dram or two of Honey of Rue, half a Dram of Venice Soap; and a few Drops of the Oil of Anise.

Lastly, several Women, tired with the Cries of Infants, to procure Sleep, in this Disease, give various Sedatives, such as Mithridate, the Requies Nicolai Myrepli, and some others; but with the greatest Hazard, and a very bad Effect; for, besides many ill Consequences, a wonderful Dulness of Mind usually follows the imprudent Use of Opiates.

CONVULSIONS OF CHILDREN.

Under the Article EPILEPSY we have fully described that Disorder, and Convulsions; and there, by conclusive Arguments, proved, that the Cause of one consists in a Spasm of the Dura Mater; and that of the other in a spasmodic Stricture of the Membranes investing the spinal Marrow. However, that it may be known separately, what Causes principally subject Infants to these terrible Affections, and by what Remedies they ought to be removed, I think it expedient, in this Treatise of infantile Disorders, to add some things, which have a particular Relation to these Indispositions in Children.

Epilepsies, then, and Convulsions, are generally more incident to Childhood, which continues from the first to the seventh Year, for no other Reason, than that, in Infants, the nervous, membranous and exquisitely sensible Parts, are composed of very tender and very moveable small Fibres, which, being irritated, tho' in the slightest manner, are very easily thrown into irregular and spasmodic Commotions: Wherefore it is usual for an Infant, the more tender and young he is, and the greater Sensibility he has obtained from his Parents, which were either subject to Affections of the Mind, or formerly afflicted with the same Disorder, to be seized more violently, and readily, with Epilepsies and Convulsions.

Besides, these dreadful Affections easily happen, not only when the Mothers, who bore the Infants, have neglected a salutary Course of Diet, but, also, when the Nurses, who give them Suck, are afflicted with Hysterics, or other Passions of the nervous Kind; if they eat too plentifully of Sallad, Acrids, Summer Fruits, and other incongruous things, drink spirituous Liquors too freely, or feed the Children, committed to their Care, with too large a Quantity of gross and impure Milk. Nor is it uncommon, as I have often observ'd in Practice, for sucking Children readily to fall into epileptic Convulsions, and these difficult to be cured, when the Nurses, seized with a violent Affection of Mind, especially Anger, Terror, and Fear, offer the Breast immediately, before a due Discharge and Correction of the Milk; or if, at any time, the menstruous Purgations come on, which, from the Beginning of giving Suck, to that time, they have been Strangers to.

Farther, Experience shews, that the Falling-sickness, as well as Convulsions, are sometimes excited, when any nervous Parts are agitated with Spasms or Pains, and, at the same time, by means of the Consent of Parts, the Membranes of the Meninges, and spinal Marrow, are affected. I have observed this

to happen, principally, from the Meconium being retained in the Primæ Viæ, and, by its Continuance there, render'd more acrid; from Gripes, likewise, and Worms, lacerating the sensible Coats of the Intestines, and from Pains proceeding from difficult Dentition, and strong Purges, especially when often given: For all these things are of such a Nature, that, in Patients endued with delicate Constitutions, they easily excite epileptic and convulsive Motions.

Lastly, as those Children are preserv'd or freed from an Epilepsy and Convulsions, upon whom that Species of Eruption, called *Favi*, a Crusta Lactea, or an Itch with Pustules, appear; so these dangerous Disorders very frequently draw their Origin from these Impurities, injudiciously repelled: The same holds true of the Small-pox, and Measles; of which an obstructed Eruption, noxious Retrocession, or improper Cure, destroys numberless Infants, by Epilepsies and Convulsions.

The Convulsions and Epilepsies, which accompany acute, petechial and variolous Fevers, are bad Signs; and are not without Danger, when, proceeding from difficult Dentition and Gripes, they afflict for a long time. *Hippocrates, Sect. 3. Aphor. 28.* and Experience, testify, that whoever is not freed from these Disorders about the seventh Year, is, for the most part, miserably afflicted with them, till his very Death. Nor, lastly, are we to neglect to take the Prognostic from the Frequency of the Fits; where it is to be observed, that the more frequent the Attacks, the more Danger there is, that, Nature being at last too much weaken'd, the Patient fall a Victim to his Disorder.

THE CURE.

As in all sorts of Distempers, so in the Disorders now under Consideration, the Physician's whole Intention should be directed to the Causes. If, therefore, this Disorder takes its Rise from a Fright, or violent Passion, of the Nurse, laying aside all spirituous, acrid, and irritating Remedies, it is proper to give what gently curbs the inordinate and spastic Motions of the nervous System; such as Clysters prepared of emollient and carminative Substances, antispasmodic Powders made up of the Pulvis Marchionis, Cinnabar, and a little Musk, and either exhibited alone, or in some Water of a sedative Quality; such as Water of the Lime-tree, Lilies of the Valley, Cowslips, or Orange-flowers.

But the Cure is very different, when the Disorder arises from the Milk, corrupted and rendered corrosive in the Infant; for, in this Case, besides demulcent Clysters, absorbent Powders, exhibited with Saffron, Musk, or a small Quantity of the Extract of Castor, are of singular Service; especially if, at the same time, a pretty rich Decoction of Harts-horn is used for Drink. But, if the Primæ Viæ are to be purged from any Sordes they contain, this End may be commodiously obtained by a Decoction impregnated with Manna, successively exhibited with a few Drops of the Oil of Tartar per Deliquium dropt into it.

When too large a Quantity of gross Milk lays the Foundation of the Disorder, the Infant should be fed with less Milk, and such Aliments given, as render it more fluid and serous. In such a State, likewise, the Stomach is often very much stuffed by stagnating and coagulated Milk, where a gentle Emetic, given out of the Paroxysm, is often serviceable. This Emetic may be prepared of a third or fourth Part of a Grain of Emetic Tartar, mixed with Syrup of Violets, and some proper distilled Water.

When the Meconium, not properly purged off in the first Months, and becoming acrid by Continuance, produces this Disorder, it ought to be evacuated by gentle Laxatives, mixt with Absorbents; especially by an Electuary, compounded of the Syrup of Succory, with Rhubarb, Crabs-eyes, and the Pulvis Marchionis. Worms, on the contrary, are to be destroyed and expelled by Remedies accommodated to them.

If an epileptic Disorder, at any time, proceeds from a Repulsion of the Itch, a Scald Head, or other Eruptions; those Things should be used, which have a Power of recalling the impure Matter to the Surface of the Body; and I have often known particular Advantages arise in such a Case, from Vesicatories, applied to the Nape of the Neck. And this too seems confirmed by the Experience of *Fernelius*, who mentions many epileptic Persons, as cured by Fontanels and Setons.

It is the Practice of some Physicians, and those of no mean Note, for appeasing the violent Commotions of the Solids, to recommend Opiates; such as the Pilulæ de Cynoglossò, the Theriaca cœlestis, and some others of a like Nature. But, since I have frequently seen the ill Effects of them, I am of Opinion, they ought to be used very cautiously. The same may be said of Volatiles, which, even externally applied, very often prove injurious.

ATROPHY OF CHILDREN.

Among the various Diseases familiar to Infants, a Tabes is not the most inconsiderable: This is a gradual Consumption of the whole Body, attended commonly with an Inflation of the Abdomen, and an extraordinary Injury of the several Functions.

At the Beginning of the Disorder, both the inferior and superior Limbs begin to grow flaccid, and decay; but the Abdomen

is distended. The Patient breathes with Difficulty, is seized with a Lassitude of Body, is sometimes costive, and at other times has his Body soluble; his Appetite is irregular and uncertain, but principally fond of cold Aliments: In the Increase of the Disorder, the Countenance, in consequence of a collapsed State of the Temples, becomes unseemly and pale; the Eye-lids, after Sleep, become tumid; the Ribs are protuberant; the Scapulæ prominent, like Wings; the Food is discharged generally half digested; and gnawing Pains are often felt about the Region of the Navel; the Urine is sometimes thick, and sometimes of a redish Colour; Sleep is turbulent; and, about Night, a slow Heat, accompanied with Thirst, and Dryness of the Mouth, begin to afflict the Patient.

But this Disorder ought not to be confounded with Extenuation and Leanness of Body; which, proceeding from a Defect of Fat, often possesses one Part only, without injuring the Functions of the whole Body. It ought, likewise, to be carefully distinguished from the Rickets, in which some Parts are, indeed, wasted; whilst, at the same time, the Limbs are deformed with Tumors, Contractions, and Incurvations. Besides, we must be very careful not to mistake a primary or original Tabes, for that Extenuation, which, as a Symptom, succeeds other Diseases; such as Fevers, Small-pox, Measles, Diarrhoeas, and Worms. Lastly, a genuine Tabes differs from that Leanness, which arises from a Want of Milk; which may be discovered, if the Breasts of the Nurses are flaccid, and absolutely without Milk; if the Nurses themselves have not good Appetites; if the Children discharge but little Urine; cry and complain; if, after taking Aliments, they are quiet; and if they greedily snatch at the Breasts.

Those who die of this Distemper, when laid open, are generally found to have the Glands of the Mesentery tumefied, scirrhus, or even affected with Abscesses. The Liver, also, and Spleen, are seldom seen without some Disorder, Infarction, and a preternatural Magnitude. The Muscles, particularly of the Abdomen, are so extenuated, as to be hardly thicker than a Membrane. The Intestines, on the contrary, are very much inflated, and filled with a fetid, and, sometimes, a black Sordes.

We attribute the immediate Cause of this Disorder, either to a Defect of nutritious, temperate, and gelatinous Juice, or an insufficient Application of it to the solid Parts; but the more remote Causes we ascribe to a depraved Digestion of the Aliments, an impure and thick Chyle, and an Obstruction of its Passage thro' the lacteal Vessels to the thoracic Duct, and Mæs of Blood. But we must here principally blame the Defect, or languid Condition, of the Bile, occasioned by a preternatural State of the Liver, by which Digestion is not only very much injured, but also the Mouths of the villous Coat of the Intestines, because not properly freed from mucous Sordes, receive and transmit the Chyle with more Difficulty.

The remote and occasional Causes of this Disorder are various: Though I have generally observed, that this violent and chronic Indisposition has followed Diseases of many Kinds; such as the Small-pox, Measles, convulsive Motions from difficult Dentition, and some others; especially when the Patients, upon Recovery, indulging their Appetite too much, have taken Aliments of a gross Texture; such as Cheese, Bread not well fermented, farinaceous Substances, sweet Cakes, with Summer Fruits, acid Aliments, and Wines, of the same Quality. But nothing, as frequent Experience assures us, is more prejudicial, than if Infants, when hot and moist with Sweat, often use cold Drink in the Night, or when, being hot in Bed, they are, whilst awake, removed into the cold Air. For, by the Suppression of Transpiration, and Constriction of the minute Ducts of the external Parts, the nutritious Juice is not only diverted and repressed from the Periphery to the Centre, and inferior Parts, but, likewise, acquires a depraved saline and acrid Quality.

Nor do I hesitate, with the celebrated *Chuden*, to assert, that Infants are subject to a Tabes, from an Obstruction of the Pores of the Skin, unless they are well washed and cleansed from their Sordes. But they, who affirm that Worms, which they call *Comedones*, are generated in the Skin of new-born Infants by a Neglect of Washing, and, as they suppose, draw off great Part of the laudable Nutriment, will not gain my Assent, because this new Assertion is not yet to me sufficiently confirmed by my own Experience.

Nor can it be deny'd, that these consumptive Disorders happen to Infants from a preposterous Use of Medicines, especially those of the earthy, absorbent, and astringent Kind, in Diarrhoeas, intermitting Fevers, Gripes, and Small-pox. For they, who have dissected the Bodies of Children, who died of this Distemper, testify, that they have found, both in the Stomach, and the smaller Intestines annexed to it, some Crusts of Matter grown solid, which could scarcely be separated from the Substance of them; which indicates, that not only the Separation of the gastric Liquor was by that means prevented, but, also, the Secretion of the Chyle, in consequence of an Obstruction of the Mouths of the Lacteals, retarded.

A Tabes, also, is properly denominated Scorbutic, when the Children are generated by Parents affected with an impure Dyscrasy of the Humours; are suckled by morbid Nurses, or such as are

troubled with a Cachexy, or any other scorbutic Disorder. Something of a Venereal Taint is too often complicated with this Disorder, on which the Atrophy depends; as the Effect does on its respective Cause.

Worms, likewise, lodg'd in the Intestines, are often the Cause of an Atrophy; for they not only destroy the most laudable Parts of the Aliments and Chyle, but, also, taint them with vitious Exhalations. In *A. N. C. Vol. 3. Append. 61.* we are furnish'd with a remarkable Instance of a Boy, who dy'd of an Atrophy; and, upon Dissection, in his Intestines, several Parcels of Worms, some larger, some smaller, were found adhering so firmly to the interior villous Coat, that they appeared, in a manner, growing to it, and could not be separated, without injuring the Coat itself.

Besides, Infants, before sound, and apparently in a State of perfect Health, without any manifest previous Cause, often begin to languish, and become extenuated. But they are expos'd to this Misfortune, when they change the Mother's or Nurse's Milk, for more solid Food; and, tho' before they could stand on their Legs, and support the Weight of their Bodies, they now become incapable of standing, and are averse to touching the Ground; but the genuine Nature of the Disorder immediately shews itself, when their Limbs become sensibly pendulous, and the Habit of the Body flaccid and corrugated, as appears principally in the Nates and Thighs. In the mean time, such Patients are continually eating, and have Appetites so voracious, that they can scarcely be satisfy'd.

It is very common for many, and even some Physicians, when the Disorder continues long, to refer the Cause to Fascination: But as this trifling and empty Excuse plainly shews, that those Men, who fly to so absurd an Asylum for their Ignorance, neither knew the genuine Causes of the Distemper, nor are able to cure it by proper Remedies; so we deservedly reject this Method of accounting for the Disorder, as foolish, and unworthy of a Philosopher and Physician.

When the Disorder proceeds from an imprudent Use of Astringents, or an excessive Use of saline and absorbent Medicines, it generally requires a long time for the Cure; but if the Matter of the earthy Absorbents has already acquired some Degree of Solidity, the Hopes of Recovery are doubtful, and many are carry'd off by Death, before the Removal of the Cause. When the Disease is inveterate, and the Mesentery, Liver, Spleen, Pancreas, Kidneys, and Lungs, are already obstructed and scirrhus, then it is seldom, or never cured. On the contrary, Hopes of Recovery may be entertain'd, if, the Concoction of the Food being amended, the Appetite becomes more constant and regular, the Tumor of the Abdomen decreases, and the Strength is recovered. If there is a Diarrhoea, and a mighty fetid purulent Matter mix'd with Blood, discharg'd from the Anus, and if, besides, the Body is very much emaciated, the Distemper cannot be cured without very great Difficulty, if at all; for the Diarrhoea still consumes the remaining Strength, and the fetid Matter shews a Corruption already begun in the Abdomen, which Death generally very soon succeeds. When the Infarction or Scirrhus degenerates into an Exulceration, and an hectic Fever succeeds, which we commonly know from a flame-coloured and redish Urine, preternatural Heat, and Flushings after Aliments, then the Infants most certainly die. Lastly, frequent Observation proves, that a Tabes is, sometimes, happily removed by intermitting Fevers.

THE CURE.

Tho' the Cure of this Disorder is very different, according to the Diversity of the Causes from which it proceeds, yet, in general, we are to take care, that Infants, after weaning, be supply'd with Food of such a Kind, as adds Nutriment and Strength to the languid Body, and emaciated Parts. This Intention is excellently answer'd by Broths of bruis'd Fowls or Capons, prepar'd without the Fat, or a perceptible Quantity of Salt, as, also, by Paps of Apples prepar'd with the Yolks of Eggs and Sugar, together with a little Cinnamon, Mace, and Wine.

When the Mouths of the lacteal Vessels and Ducts of the mesenteric Glands are obstructed by a viscid Sordes, then Broths of old Fowls boil'd with the recent Roots of Grass, Fennel, Parsly, Asparagus, and Celery, without the Fat, and adding a small Quantity of the Spiritus Nitri dulcis, or a few Drops of the Spiritus Vitrioli Martis, or a Solution of Crabs-eyes, are of all other Medicines the most efficacious. But these Broths should be continued for several Days, and even Weeks, in such a manner, that three or four Ounces should be taken every four Hours.

Among the deobstruent Medicines of great Efficacy, in this Disorder, the principal are, the saline Liquors of a neutral Quality; those, for Instance, prepared of a Solution of Crabs-eyes, with Lemon-juice, the Terra foliata Tartari, and the Arcanum Tartari, dissolved with the Waters of Fennel, or Parsley, and exhibited in a due Dose frequently every Day: From which Remedies I have often experienced an extraordinary and wonderful Effect.

In order to promote a laudable Digestion of the Aliments, especially when a balsamic Bile is deficient, and acid and viscid Sordes predominate, the temperate balsamic Elixir, mixed with the

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the Aliments, in a sufficient Quantity, produces very happy Effects. But in a Complication of Gripes, Pains, Inquietudes, and other Symptoms, the anodyne mineral Liquor, mixed and given with a thin Solution of Salt of Tartar, is a most effectual Remedy.

When the Disorder proceeds from an Obstruction and Infarction of the subcutaneous Ducts, or an interrupted Transpiration, Baths prepared of the Roots of Marshmallows and Ferns, the Herbs Mallows and Melilot, Chamomile-flowers, and Venice Soap, with the Addition of a sufficient Quantity of Milk, are highly beneficial. And it is observed, that a frequent Use of Baths, the first Month after Birth, is an excellent Preservative.

Externally, for discussing the Tumor, Oil of Chamomile, or Oil of Dill, boiled, and moderately impregnated with Camphire, are highly efficacious.

When this Tabes draws its Origin from an impure scorbutic Milk, the Nurse must be removed, and sweet Whey, or Asses Milk, with some Drops of Oil of Tartar *per Deliquium*, exhibited.

To these we are to add diluting Infusions of Paul's-betony, Ground-ivy, the Roots of Liquorice, and Succory, together with a Solution of Salt of Tartar, and Arcanum duplicatum.

In Children who are weaned, some other diluting Drink, with some Oil of Tartar *per Deliquium* drop: into it, must always be substituted in the room of Beer.

If the Disorder arises from an excessive Use of Absorbents, diluting Infusions, in conjunction with Laxatives prepared of Manna, Rhubarb, or Syrup of Succory with Rhubarb, will prove highly beneficial. It is, also, some times expedient to free the Stomach from viscid Sordes, by a pretty large Dose of the Powder of *Florentine Orris*.

Purgatives rather exasperate this Disorder, and dispose it to an Hectic, especially in Patients of delicate Constitutions: For the Stomach and Intestines are often inflamed by them, a Circumstance soon succeeded by Death.

CARDIALGIA.

We shall now briefly treat of some Disorders incident to Children, not because they are inconsiderable, and unworthy of a particular Examination, but because they do not require so long and accurate an Account of their Causes; and but very few things are requisite to the Cure, if they are used in a proper Time, a due Order, and in conjunction with a suitable Regimen.

We shall, first, then, consider a Cardialgia, which discovers itself principally by an uncommon Straitness over the Breast, join'd with difficult Respiration; by Inflations of the Abdomen and Præcordia under the spurious Ribs; by Inquietudes and Eruptions often attending them; to which slight Fevers and Convulsions are frequently join'd.

This kind of Disorder proceeds from a violent and spasmodic Stricture of the Orifices of the Stomach, and the Flatulences by that means included in it, which, by distending the sensible Membranes of the Stomach, produce the utmost Anxieties, Inquietudes, and, from an obstructed Descent of the Diaphragm, a Difficulty of Breathing, with the other Symptoms. But this Effect is principally produced by the Meconium, when not properly evacuated; by the Milk coagulating or stagnating; or by any other viscid Humours lodged in the Primæ Viæ, and resolved into Flatulences: Neither are we to exclude other Causes, which, by irritating the nervous Coats of the Stomach, are capable of stimulating it to a spasmodic Constriction, and, consequently, of inducing a noxious Retention of the Flatulences.

During the Fit, let but little Milk be given to the Infant, and antispasmodic absorbent Powders, with some carminative Water, be administered both to the Nurse and Infant; and, for their Drink, let them use gelatinous Decoctions of Hartshorn, and correcting Emulsions. But, since a due Discussion and Discharge of the Flatulences is of the utmost Service in such a Case, this Intention must be answered principally by gently carminative and emollient Clysters: An outward Application of Paregorics is, likewise, very beneficial. For this Purpose it is expedient to anoint the Abdomen with a Liniment prepared of the Oils of Chamomile and Dill by boiling, with the Addition of a few Drops of the Oil of Cumin, Mint, or Cloves, and a few Grains of Camphire.

When the Body is rendered soluble by means of Clysters, gentle Carminatives are serviceable; unless an Increase of the Fever should contraindicate their Use: For which Reason *Wedelius's* carminative Essence of Orange-peel, mixed with a due Quantity of the anodyne Liquor, is to be exhibited to the Nurse; and the Infant is to have an *Eleosaccharum* prepared with a few Drops of the genuine Oils of Anise and Chamomile, drink: after it a Draught of warm Water-gruel.

After the Fit, in order to remove the Fomes of the Distemper, not only the Nurse, but, also, the Infant, ought to be gently freed from the Sordes lodged in their Stomach and Intestines; which Intention is excellently answered by the following Powder:

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Take of the best Rhubarb, and Crabs-eyes, each half a Dram; and of Cumin-seeds, six Grains.

Six, eight, or ten Grains of this Powder are to be exhibited at proper Intervals, not omitting, at the same time, the Use of corroborating and stomachic Medicines, such as the *Elixir Balsamicum Viscerale*.

SUPPRESSION OF URINE.

When Infants either discharge no Urine, or do it only by Drops, and with Shrieks, this Suppression of Urine often subjects them to intolerable Pains; because, at that time, they, in consequence of their Uneasiness and Inquietude, not only suck greedily, but are, also, incapable of discharging the superfluous Milk by Urine. This Difficulty of making Water is produced, when the Nurse's Milk is corrupted by gross, acid, and acrid Food; or when she herself, by drinking unwholesome Liquors, makes Water with Difficulty; for such, generally, is the Urine, and its Discharge, in the Child, as are his Humours; and the State of his Humours is as the Milk he sucks from the Breasts of his Nurse.

RETENTION OF URINE IN CHILDREN, FROM THE STONE.

An Ischury is, also, frequently produced by a Stone lodged in the Bladder, to which Infants, in consequence of a copious Production of acid Juices, are highly subject, especially if they are inclined to the Generation of a Stone, by an hereditary Disposition, derived from their Parents. If it proceeds from this Cause, the Infants scratch the Genitals with their Fingers, and the Urine is not only discharged by Drops, and with Shrieks, but the fabulous Particles, also, which are, at the same time ejected, subside, if the Urine is kept. But, if all these Symptoms cannot be depended on, the Stone may be discovered easily by an artificial Search.

As for the Cure, the Diet of the Nurse, while she gives Suck, and of the Infant, when weaned, must be amended; which is best performed by carefully avoiding all improper Aliments, and unwholesome Drinks. But, further, this Disease is often supported by an obstructed Evacuation by Stool. This, therefore, ought, above all things, to be promoted; unless we intend to bring on a greater Afflux of the Humours to the urinary Passages. This Intention is commodiously answered by Resins impregnated with Rhubarb, taken in proper Aliments, or by Clysters duly injected.

After this, a convenient Drink, both of a diluting and gently diuretic Quality, should be prescribed to the Nurse, as also to the Infant; such as Decoctions of light Water, with the Roots of Asparagus, Carrot, Parsley, Grass, Fennel, Saxifrage, and Succory, drank warm in the Morning, and through the rest of the Day cold, as ordinary Drink. Of no less Efficacy is the acidish Serum of Milk, corrected with Crabs-eyes, which Liquor is, also, possessed of a temperating Quality.

When the Discharge of Urine is suppressed by calculous Fragments obstructing the Urethra, and irritating its highly sensible Coat, so as to excite violent and racking Pains, emollient Clysters are, in like manner, of Service. But, internally, in order to allay the Spasms, it is expedient to exhibit *Fernelius's* Decoction of Marshmallows prepared with Venice Soap, or Oil of sweet Almonds, with a few Drops of the anodyne Liquor, in warm Barley-water, or Water-gruel. When, by means of these, the Spasms are relaxed, we may, with Advantage, use Powders of Crabs-eyes, calcin'd Egg-shells, Solutions of Crabs-eyes, and other things which gently promote a Discharge of Urine.

Externally, if the Pain from the Stone and Ischury is very violent, Baths of sweet Water, in which emollient Substances, such as Mallows, Marshmallow-roots, and Chamomile-flowers, have been boiled, are highly beneficial. It is, also, of considerable Service to apply Bags, filled with the same things, warm to the Region of the Pubes, the anointing which with Oil of Scorpions is, also, productive of happy Effects.

CATARRHOUS DISORDERS IN CHILDREN.

Infants, also, in consequence of a large Quantity of pituitous Juices, are highly subject to catarrhus and serous Disorders, among which we reckon a Coryza, a Stuffing of the Head, Hoarseness, Coughs, Asthmas, Infarctions of the Breast, accompanied with a kind of Snorting and Wheezing, Inflammations of the parotid Glands, and the Crusta lactea: All which Distempers agree, in general, in this, that they, for the most part, derive their Origin from a Fault in the Air, a sudden Change of Weather, and a Suppression of Transpiration.

As to what belongs particularly to the Asthma and Cough, especially of the dry and violent kind, it must be observed, that these Disorders, accompanied with a great Difficulty of Breathing, and Dread of Suffocation, not only often rage epidemically, but, also, in a particular manner, as Experience testifies, attend a difficult Dentition, if the Nerves subservient to Respiration are

are convulsed and vellicated, in consequence of the mutual Consent of the Parts. These Disorders, also, frequently happen from an improper Treatment of the Small-pox and Measles; especially when, after the Disease is subdued, neither an Evacuation by Stool, nor insensible Transpiration, are duly promoted; or, also, when a certain acrid excrementitious Matter, in an Erysipelas, Purple Fever, or Crusta Lactea, has been repelled to the internal Parts; for then Infarctions of the Lungs, and troublesome Irritations of the pulmonary Nerves, which excite an Asthma and Cough, are generally produced by the acrid and viscid Humour. Lastly, these Disorders are principally produced by an excessive Inflation of the Stomach, occasioned by viscid Milk stagnating there in too large a Quantity, and obstructing the Descent of the Diaphragm. Hence we often observe, that Vomiting, either spontaneous, or excited by Art, affords considerable Relief, as well to Persons afflicted with a Cough, as to those labouring under an Asthma.

For the Cure of a Cough and Asthma, absorbent Powders internally exhibited, with Root of *Florentine* Orris, Sperma Ceti, and Sugar-candy, are highly beneficial; as, also, a balsamic Elixir, prepared of the Tincture of Tartar, the Essences of Myrrh, Saffron, Nutmeg, and Orange-peel, together with Spirit of Sal Ammoniac. But, in dry and more delicate Patients, it is more expedient to exhibit a proper Dose of the following pectoral Elixir:

Take of the Extract of Saffron, four Grains; of the Waters of Paul's-betony, and Hyssop, each half an Ounce; and of the Syrup of white Poppies, or the Syrupus de Erylimo Lobelii, two Drams: Make into an Elixir.

To these we may commodiously add, at proper Intervals, warm Infusions of pectoral Herbs; by which, especially during a moist and cold Temperature of the Air, Transpiration is not only greatly promoted, but a Resolution of the inspissated Fluids commodiously obtain'd: And these are, likewise, salutary, when an obstinate and dry Cough arises either from, or is accompanied with, an acrid Lymph, irritating the Larynx; especially when, at the same time, in order to correct the Acrimony, Sperma-ceti is dissolved in Broths, or reduced to the Form of an Electuary, with Oil of sweet Almonds, Sugar-candy, *Fernelius's* Syrup of Marshmallows, and a few Drops of the Oil of Anise, and exhibited at proper Intervals.

If at any time an Asthma, attended with a Cough, proceeds from acid and viscid Crudities, fluctuating in the Stomach, and producing an Inflation of it, we often, with Success, give a mild Emetic, prepar'd of half a Grain, or a Quarter of a Grain, of emetic Tartar, mixed with dissolv'd Manna; or a few Grains of the Root of *Ipecacuanha*, infused in warm Water, which is to be edulcorated by the Addition of some proper Syrup. This End is very well answer'd, likewise, by emollient and carminative Clysters, which, by preparing a Passage downwards for the Flatulences, contribute greatly to a successful Removal of the Disease.

If a repel'd, acrid, and excrementitious Matter gives Birth to the Disorder; besides internal Diaphoretics, gentle Vesicatories, applied to the Nape of the Neck, often produce an happy Effect. But, externally, in these Disorders of the Breast, considerable Relief is afforded, by anointing the Parts affected, with human Fat, and vinous Spirit of Sal Ammoniac.

Achors, Vari, and Tinere, are ulcerous Tubercles, proceeding from a peccant, corrupted, saline, and viscid Serum, contain'd in the subcutaneous Glands and Ducts; and generally draw their Origins from an excessive Voracity, corrupted Milk of the Nurse, and a Suppression of Transpiration, by means of Cold. The same Causes produce Inflammations of the parotid Glands, and a Discharge of Matter from the Eyes and Ears.

All these Disorders, as well as other catarrhus Defluxions, are best remedied, partly by exhibiting to the Nurse such Infusions as dilute the Blood and Lymph, those, for Instance, prepar'd of Liquorice-root, the Bark and Root of Sassafras, and Fennel-seed; and partly by means of *Crato's* Pilulæ de Succino, both with and without Mercury; as, also, by the pectoral Elixir last mention'd. But to the Infant we are to exhibit Powders, prepar'd of diaphoretic Antimony, Crabs-eyes, *Florentine* Orris, Milk of Sulphur, a little Saffron, and Oil of Anise. For this In end we, also, exhibit Laxatives, and Preparations of Mercurius Dulcis, Rhubarb, and Manna. Inflammations of the parotid Glands are, besides the internal Use of Resolvents, to be treated externally with the simple Diachylon Plaster, mixed with Camphire; and, if the Tumor cannot be discuss'd, it is to be maturated by emollient Cataplasms:

OF HICCUPS AND VOMITING IN CHILDREN.

Hiccups, as well as Vomitings, arise from the Stomach, and are excited by Crudities accumulated in it: For, if a tenacious acrid Mucus is firmly seated in the superior Orifice of the Stomach, this Organ is not only stimulated to a Discharge of its Contents, or a Vomiting; but, also, the Diaphragm, in consequence of their mutual Consent, is affected with convulsive Motions; and, the Diaphragm being contracted in Inspiration, Hiccups, sometimes of

a very obstinate Nature, are excited: Hence it, also, frequently happens, that Infants are afflicted with the Hiccups, and a Vomiting, at one and the same time.

Both these Disorders often proceed from too great a Repletion of Milk, or a Corruption of that Liquor in the Stomach: When this is the Case, a milky kind of Substance, commonly of a bad Colour, and disagreeable Smell, is, for the most part, discharg'd by Vomit. But extreme Cold is often productive of these Misfortunes; or even difficult and painful Dentition may be the Cause, if, in consequence of the Consent of the Parts, the Diaphragm and Stomach are affected.

If Vomitings and Hiccups proceed from taking too large a Quantity of Milk, they scarcely prognosticate any Danger; since every one knows, that, in this Case, Children are generally relieved by Vomiting: But, if they spring from a Corruption of the Milk, the State of the Patient is more dangerous, because Epilepsies and Convulsions often ensue, and prove fatal.

The Causes of these Disorders indicate a proper Method of Cure: For if Milk, taken plentifully, offends, its Quantity ought to be lessened for the future; but, if the Disorder proceeds from its depraved Quality, we ought to procure a proper Excretion of it, both from the Nurse and Infant. The Method of obtaining this End has been already specified.

But, in both these Disorders, singular Relief is generally afforded by Syrup of Mint, or Betony, exhibited with a few Drops of the Oil of Mace, or of the anodyne Liquor, as also the Waters obtained from Chamomile-flowers, Yarrow, Mint, and black Cherries, mixed with a proper Quantity of the same anodyne mineral Liquor. Externally, great Relief is afforded by Frictions with warm Cloths, and by anointing the Region of the Stomach with the following Ointment:

Take of the Oil of Dill, one Ounce; of the Oil of Mint, half a Dram; of Saffron, one Scruple; and one Yolk of an Egg: Make into an Ointment.

OF COSTIVENESS IN CHILDREN.

Infants are sometimes costive, and at other times have their Bodies too soluble. The former of these Misfortunes is produced, when Infants are too voracious; or when the Nurses, whilst yet suckling them, indulge themselves in the Use of gross and acid Meats, or spirituous Liquors. But though no Injury arises immediately from a slow Excretion of the Fæces, yet, if they are retained too long, they often lay a Foundation for great and violent Disorders.

In order, therefore, to render the Body duly soluble, the principal Intention to be pursued, is to take care, that the Nurse uses a light and resolving Diet, exhibiting, at proper Intervals, Curants, either reduced to the Form of an Electuary, with Rhubarb and Sugar, or boil'd with Apples. But the Infant is relieved either by Syrup of Succory, with Rhubarb, and a few Grains of white Mechoacan, exhibited at proper Intervals; or by Clysters prepared either of a Decoction of Oats with Honey and Butter, or of Whey, and *Venice* Soap. It is, also, of great Service to anoint the lower Part of the Abdomen, about the Navel, with Oil of sweet Almonds, mixed with a due Quantity of the Trochisci Alhandal, reduced to Powder.

OF FLUXES IN CHILDREN.

The Disorder opposite to Costiveness is a Diarrhoea, or excessive Flux, which happens to numberless Infants, from the Transports of Passion, and the improper Diet of the Nurse; from an obstructed Perspiration; a vitiated Digestion of the Food; and an Acrimony of the Bile, occasioned by these means; whence Fæces of various Colours, Smells, and Consistences, and often bloody, are frequently discharged, for no other Reason, but because the Intestines, either spasmodically constricted, express the contained Sordes, or, for want of a due Tone, let them slip involuntarily through them. For this Reason it often happens, that such Stools not only attend violent Pains, those, for Instance, produced by difficult Dentition, but are, also, very familiar to those who either labour under an Atrophy, or a Palsy.

Though this disagreeable Distemper is very troublesome both to Infants and others, and often threatens a fatal Event; yet it ought not to be suddenly checked, especially if Children bear it well, and if its Suppression is not indicated as proper, by Inquietudes, Watchings, Gripings, an Atrophy, and other Symptoms. But, when this happens, we must first of all have regard to the Milk of the Nurse, if the Child still uses it; and, if she lays a Foundation for the Distemper, she must be changed, using, at the same time, for Drink, a Ptilan prepared with Juice of Quinces; or Broths, boiled with Fowls, Rice, and Miller.

The disordered Infant may be relieved by taking internally Powders of *Armenian* Bole, and Crabs-eyes, with a few Grains of the Bark of Catcarilla; to which, according to the Circumstances, may be added Amber, or a third Part of the Theriacal coelestis, for a Dose: But, externally, nothing is of more Service than anointing the Belly with the following Liniment warm.

Take

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Take of the expressed Oil of Nutmeg, and of the Oil of Jessamine, each half an Ounce; of Peruvian Balsam, and of the Oil of Mint, one Dram. Make into a Liniment.

And, besides these, in such a State of the Disease, great Advantage accrues from the Use of Clysters, prepared of sweet Whey, boiled with Millet and Rice, and strained; which, also, affords great Relief in a Tenesmus, with which this Disorder is frequently accompanied; tho' this Misfortune, when of long standing, is most effectually removed by Suppositories prepar'd of the Yolk of a roasted Egg, with Saffron, Frankincense, and one Grain of Opium. *Frederic Hoffman.*

Boerhaave thus treats of the Diseases of Infants.

New-born Infants are subject to some Disorders peculiar to themselves; and which arise, first, from glutinous, caseous, and viscid Strigments, lodged in the Mouth, the Oesophagus, the Stomach, and the Intestines.

From this Cause alone often arise Nauseas, Vomitings, Gripes, Hiccups, and Convulsions, and a consequent Indigestion of the Aliments.

The Disorders produced by this Cause are easily cured by Fasting for ten or twelve Hours; by repeated Doses of a small Quantity of Wine, mixed with Honey, during this time of Abstinence; or by a gently stimulating Purgative. Thus:

Take of Honey, *French* Wine, and Hydromel, each half an Ounce: Mix all together for one Dose.

A gentle stimulating Purgative may be prepared in the following manner:

Take of the Syrup of Succory with Rhubarb, three Drams; of *Venice* Soap, half a Dram; and of distilled Baum-water, half an Ounce: Mix all together for one Dose.

In order to wash away these pituitous and mucous Sordes, Epithems moderately aromatic and spirituous are often highly efficacious. For this Purpose,

Take of Cinnamon, Mace, Nutmeg, Mastich, and Olibanum, each two Drams; and of the Spiritus Vini Theriacalis, four Ounces: Make into a Tincture. Then

Take one Yolk of an Egg; of the above prescribed Tincture, half an Ounce; and of distilled Rose-water, two Drams: Mix with a small Quantity of the Crumbs of Bread, and apply to the Stomach.

Or,

Take of the yellow Rind of Citrons, grated, half an Ounce; of Nutmegs, two Drams; and of Spanish Wine, three Drams: Triturate all together in a Mortar, mix with Crumbs of Bread, and apply to the Stomach as before.

Secondly, Infants are generally subjected to many Disorders, when the Meconium is not sufficiently soon expel'd, either by reason of the Weakness of the Infant; the Hardness of the Matter; its excessive Quantity; or the Dryness of the Parts thro' which it ought to pass.

Hence, in consequence of the long Retention of the Meconium, and the Access of the Air to it, it becomes acrimonious, acid, putrid, and is resolved into Vapours; by which means, Gripes, Convulsions, Nauseas, Vomitings, Hiccups, Coughs, Sneezings, Shrieks, Cries, Watchings, Startings, Fevers, Leanings, and, at last, Death, are produced.

The weaken'd Force, which ought to expel the Meconium, is augmented and increased by gentle Purgatives, mild Suppositories, and sweet and gentle Cordials. Thus:

Take of the recent Extract of Cassia, half a Dram; of Rhubarb, three Grains; and of the Syrup of Succory with Rhubarb, two Drams: Mix all together for one Dose.

Or,

Take of Calabrian Manna, two Drams; of the solutive Syrup of Roses, one Dram; and of distilled Elder-flower-water, four Drams: Mix all together for one Dose.

Or,

Take of Virgin Honey, three Drams; of solutive Syrup of Roses, with Sena, one Dram; and of distilled Succory-water, four Drams: Mix all together for one Dose.

Or,

Take of the best Rhubarb, six Grains; of the best Agaric, two Grains; and of the Syrup of Violets, two Drams: With these, when carefully triturated together, mix two Drams of distilled Baum-water.

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For Suppositories,

Take *Venice* Soap, form'd into a small Globule or Cone;

Or,

Take a small Globule or Cone of Loaf Sugar;

Or,

Take Honey, boiled to a sufficient Degree of Hardness, and formed into the Shape of a small Suppository.

Or,

Take a small Quantity of Candle-tallow, and form it into the Shape of a Suppository.

Cordials to be used in Cases of this Nature may be prepared in the following Manner.

Take of Honey, one Dram; of *Spanish* Wine, two Drams; and of the Yolk of an Egg, two Drams: Mix all together for a Draught.

Or,

Take of distilled Cinnamon-water, two Drams; of Elixir Proprietatis, prepared with Salt of Tartar, six Drops; and of the Syrup of Kermes, one Dram: Mix all together for a Draught.

The Hardness or Induration of the Meconium is corrected by Draughts of recent Whey, with a little Honey diluted therein, and by Clysters impregnated either with Soap or Honey. Thus:

Take of recent Whey, four Drams; and of Honey, one Dram: Mix for a Draught.

Or,

Take of recent Whey, two Ounces; of *Venice* Soap, a Dram and an half; and of Honey, two Drams: Mix all together for a Clyster.

The Intestines are lubricated by taking internally Linseed-oil, Oil of Olives, and that of sweet Almonds; by injecting these Oils by way of Clysters; and by anointing the Abdomen with Liniments of a similar Nature. Thus:

Take of Linseed-oil, one Dram; and of the Syrup of Marshmallows, two Drams: Mix together for a Dose.

Or,

Take of Oil of Olives, and of the Syrup of Maidenhair, each two Drams: Mix for one Dose.

Or,

Take of the recent Oil of sweet Almonds, three Drams; and of the Syrup of Liquorice, two Drams: Mix for one Dose.

Take of Linseed-oil, half an Ounce; of the Yolk of an Egg, two Drams; of the Honey of Mercury, half an Ounce; and of recent Whey, one Ounce: Mix for a Clyster, to be used once a Day, till the Intestines are lubricated.

Take of the compound Ointment of Marshmallows, one Ounce; and of Linseed-oil, half an Ounce: Mix up for a Liniment, with which the Abdomen is to be anointed every Morning and Evening.

By this Method, and the Use of these Medicines, all the terrible Disorders, arising from a Retention of the Meconium, are easily removed.

But if, in any Disorders, Antiacids are beneficial, they are, in a peculiar manner, so, in Cases of this Nature; and especially Absorbents. Thus:

Take of Crabs-eyes, Osteocolla, Chalk, the Jaw-bone of the Pike, and of Oyster-shells, each two Drams: Mix together, and reduce to a Powder; of which six Grains are to be taken twice or thrice a Day.

Or,

Take of the distilled Waters of wild Poppy-flowers and Fennel, each two Ounces; of Crabs-eyes, two Drams; of *Venice* Soap, seven Grains; and of the Syrup of Marshmallows, half an Ounce: Make into a Mixture, of which let the Patient drink two Drams every Hour, if he is not asleep.

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In these Disorders of Infants, Opiates are rarely, and not without great Circumspection, to be used.

We must, also, avoid all Medicines of too attenuating a Nature; and all Substances of a stimulating and volatile Quality.

A Remedy for each of the Disorders, arising from a Retention of the Meconium, is easily discovered; provided we know the History and Method of Cure in other analogous Diseases.

Thirdly, Infants are subject to various Disorders, when the Milk, being soon and strongly coagulated in the Stomach, is form'd into one weighty Mass of an acrid Quality.

This concentered Mass, becoming gradually more acrid and acid, renders the Faces of a greenish Colour, and acid Smell; and the Matter thrown up by Vomit, acid. Hence arise Gripes, Flatulences, Pains, and numberless other Disorders, especially Convulsions.

All these Disorders are cured by antiacid Medicines, of a fixed Nature, mixed with Purgatives, by Clysters of similar Qualities, by mild Carninatives, and by oleous Substances, used both internally and externally. Thus:

Take of *Venice Soap*, two Drams; of the Yolk of Eggs, four Drams; of Crabs-eyes, three Drams; and of Rhubarb, half a Dram. By due Trituration mix these with four Ounces of distil'd Mint-water, and an Ounce and an half of the Syrup of Marshmallows. Of this Preparation let the Patient take half an Ounce every Hour, till the Symptoms are abated.

Take of *Venice Soap*, half a Dram; of Sal Gemmae, three Grains; of the Honey of Rosemary-flowers, half an Ounce; and of distil'd Fennel-water, an Ounce and an half: Mix together for a Clyster.

Or,

Take of the Gall of an Ox, half a Dram; of the Honey of Mercury, half an Ounce; and of distil'd Mint-water, an Ounce and an half. Mix all together for a Clyster.

The oleous Substances to be used internally are the same with those before recommended, for lubricating the Intestines, in order to procure an Evacuation of the Meconium. But the oleous Substances to be used externally, in Cases of this Nature, are the Unguentum Martiarum, and the Unguentum Nervinum; the Oils of Wormwood, Dill, Chamomile, and Rue, obtain'd by Infusion; and the express'd Oils of Bay, Mace, Nutmeg, and Palms.

From this Coagulation and Concretion of the Milk in the Stomach, generally arise the epileptic Fits of Children, because the nervous System is irritated by means of the vellicating Acrimony, which, in Process of Time, the coagulated Mass acquires.

Hence these epileptic Fits, if capable of being cured, are only to be removed by means of the Remedies last prescrib'd.

Fourthly, when Children have surmounted all these Disorders, and begin to use crude Aliments, Summer Fruits, Flesh, Cheese, and other things of a like Nature, Worms are generated in their Intestines.

These are produced by the Eggs of Insects, either living on the Earth, or in the Air, taken into the Stomach, and not capable of being destroyed by the languid Action of the Parts in Infants.

The Phlegm of the Intestines affords a proper Nidus for these Eggs, in which they stick, are cherish'd, hatch'd, and enlarg'd.

Hence Worms are rarely observ'd in Adults, and, if they are, they are only found in Patients of languid and leucophlegmatic Habits.

These Worms are either round, broad, or of that Kind commonly called Alcarides.

These Insects, by their Irritation of the Parts, produce Nauseas, Vomitings, Fluxes, Deliquiums; small, deficient, and intermitting Pulses; as, also, an Itching of the Nostrils, and epileptic Fits.

These Animals, also, by consuming the Chyle, produce excessive Hunger, Paleness, Weakness, Costiveness, and a consequent Tumor of the Abdomen, accompanied with Eructations, and Rumblings of the Intestines.

These noxious Insects, also, frequently perforate the Intestines themselves.

For which Reason they are so often observed to prove mortal.

The Presence of Worms may be known from the Age of the Patient, his Food, his peculiar Habit of Body, and from the Effects these Insects produce, and which are already enumerated.

This Species of Disorder is to be cured, first, by destroying that Phlegm of the Intestines, which affords a proper Nidus for these Animals, by means of fix'd Alkalis, such Gums as expel Phlegm, Preparations of Mercury and Antimony, together with aromatic Bitters. Thus:

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Take of Gum-opopanax, one Dram; and of the Yolks of Eggs, two Drams: Mix according to Art. Then add of *Venice Soap*, one Dram; of Syrup of Mugwort, one Ounce and an half; and of distil'd Fennel-water, three Ounces. Of this Preparation let the Patient take one Dram, every four Hours, for one or two Days, using, at the same time, a proper Regimen.

Or,

Take of *Æthiops Mineral*, and Troches of Agatic, each one Dram; and of the finest Sugar, one Dram and an half: Reduce to a Powder, to be divided into ten Doses, one of which the Patient is to take every Morning and Evening, on an empty Stomach.

Or,

Take of the Salt of Carduus Benedictus, two Drams; of the Syrup of the Five aperient Roots, one Ounce; and distil'd Fumitory-water, four Ounces: Mix all together, and let the Patient take three Drams, every three Hours.

Or,

Take of common Wormwood-seeds, Worm-feed, and Tansey-seeds, each two Drams; and of Honey, two Ounces: Mix all together, and let the Patient take two Drams every Morning.

The Phlegm of the Intestines, which affords a Nidus for these Animals, is, also, destroyed by anointing the Abdomen with Balsams prepar'd of strong Aromatics, mix'd with purgative and oleous Substances. Thus:

Take of the Ointments of Agrippa, and Sow-bread, each an Ounce: Make into a Liniment, with a little of which let the Region of the Navel be now-and-then anointed.

Or,

Take of the Gall of a Bull, and pure Aloes, each one Dram; and of the Ointment of Marshmallows, one Ounce. Make up into a Liniment, for the same Use.

Or,

Take of the Oils of Tansey and Castor, each half an Ounce; and of the Unguentum Nervinum, one Ounce: Make all into a Liniment, for the same Purpose.

But in the Use of these Medicines we are carefully to observe, whether they operate too violently; in which Case we are to abstain from an immoderate Use of them, lest by this means a Dysentery should be brought on.

The second Intention to be pursued in the Cure of this Disorder is, to kill the Worms, which is done by Medicines prepared with Honey; by saline Substances; by such things as cannot be digested by these Insects; by bitter Aromatics; by Preparations of Mercury; by Acids; and by Preparations of Vitriol, obtain'd from Iron, or Copper. Thus:

Take of Honey, two Ounces; of Sal Gemmae, a Dram and an half; and of distil'd Succory-water, four Ounces: Mix up for a Liquor, of which the Patient is to drink half an Ounce every Hour of the Day.

Or,

Take of calcin'd Hartshorn, one Scruple; mix with two Drams of the Syrup of pale Roses, and exhibit to the Patient four times a Day.

Or,

Take of Sea-coral, two Drams; and of the Filings of Steel, half a Dram. Reduce to a Powder, to be divided into sixteen Doses, for the same Purpose.

Or,

Take of Worm-seeds, the Seeds of Rue, Tansey, and Wormwood, each one Dram; and of Sugar, three Drams: Reduce to a Powder, to be divided into sixteen Doses, for the same End.

Or,

Take of recent Hydromel, one Pint; of Worm-feed, and Tansey-seeds, each an Ounce. Make into a medicated Wine, with which, when depurated, mix two Ounces of Virgin Honey. Of this Preparation let the Patient take an Ounce, in the Morning, on an empty Stomach.

Or,

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Or,

Take of Æthiops Mineral, eight Grains; and of Vitriol of Iron, gently calcin'd, two Grains: Reduce to a Powder, to be divided into two Doses; one of which is to be taken in the Morning, and another at Night, on an empty Stomach.

Or,

Take of Mercurius Dulcis, seven Grains; and of Diagrydium, five Grains: Reduce to a Powder, to be taken with Hydromel, in the Morning.

Or,

Take of vitriolated Tartar, four Grains; and of Vitriol of Iron, three Grains: Reduce to a fine Powder, to be divided into three Doses; of which one is to be taken in the Morning, the other at Noon, and the third at Night, on an empty Stomach.

Or,

Take of common Vitriol, two Grains; and of the Syrup of Violets, four Drams: Mix together for one Dose, to be taken in the Morning, on an empty Stomach.

The third Intention to be pursued is, to expel and dislodge the Worms, whether dead or alive, by means of bitter Purgatives, such Medicines as evacuate Phlegm, and Preparations of Mercury. Thus:

Take of Diagrydium, four Grains; and of Mercurius Dulcis, six Grains: Reduce to a fine Powder, to be taken for one Dose.

Or,

Take of Jalap-root, and Æthiops Mineral, each twelve Grains: Reduce to a Powder, to be us'd in the same manner with the preceding.

Or,

Take of Agaric, eight Grains; and of Æthiops Mineral, twelve Grains: Reduce to a Powder for the same Intention with the former.

Or,

Take of Aloes, three Grains; of Resin of Jalap, one Grain; and of Vitriol of Iron, two Grains: Reduce to a Powder, to be us'd with the same Intention as the former.

Worms, whether dead or alive, are also excellently dislodg'd by means of Clysters, Suppositories, and Ointments externally apply'd. Thus:

Take of the Oil of Linseed, three Ounces; and inject as a Clyster.

Or,

Take of Honey, two Ounces; and of distil'd Succory-water, two Ounces: Mix and inject as a Clyster.

Or,

Take of a Decoction of Tansey, three Ounces; and of Aloes, six Grains: Mix for a Clyster.

Or,

Take of the Vitriol of Iron, fifteen Grains; and of distil'd Succory-water, four Ounces: Mix for a Clyster.

Take of Honey, boil'd to a due Thickness, four Ounces; of Aloes, half an Ounce; and of the Vitriol of Iron, two Drams: Make into small Suppositories, to be us'd immediately after going to Stool.

The Ointments, in this Case, to be us'd externally, are the same with those before recommended, for destroying the Phlegm of the Intestines, which affords a Nidus for the Worms.

When the Teeth, especially those of the sharp Kind, begin to make their Eruption, by reason of the Tension, Puncture, and Laceration of the Gums, which are liberally furnish'd with Nerves and Blood-vessels, there arise Inflammations, Tumors, Gangrenes, Convulsions, Fluxes, the Matter evacuated in which is green; preternatural Discharges of the Saliva, Fevers, and Death.

That all these Symptoms proceed from one and the same Cause, is sufficiently certain.

But, when the Irritation of the Nerves is remov'd, these Disorders cease spontaneously.

Now, the Irritation of the Nerves is remov'd, first, by mollifying, refrigerating, and soothing the Gums, by means of emollient, glutinous, and antiphlogistic Medicines. Secondly, by frequently rubbing them against hard and smooth Bodies. And, thirdly, by laying them open with a Lancet. Thus:

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Take of Nitre, twenty Grains; of the Spirit of Salt, five Drops; of the Syrup of Violets, one Ounce; and of distil'd Elder-flower-water, three Ounces: Mix all together; and with this Mixture let the Gums be fomented.

Or,

Take of the recent Cream of Milk, and the Yolks of Eggs, each an Ounce; of the Syrup of Violets, six Drams; and of distil'd Rose-water, three Ounces: Mix all together for the same Use with the former.

Or,

Take of the Flowers of Roses and Elder, each half a Pugil; include them in a Linen Cloth with a Piece of Lead hung to it, sufficient to keep it from swimming; then put it into a long cylindrical glass Vessel, and pour upon it new Milk, and let the Whole remain in Digestion for a due time: And the Cream, which floats on the Surface of the Milk, is to be apply'd to the inflam'd Gums.

The Convulsions, produc'd by Denition, are happily remov'd by a moderate Dose of the Spirit of Hartshorn. Thus:

Take of the Spirit of Hartshorn, three Drops; and of the Syrup of Kermes, two Drams: Mix together, and exhibit to the Patient thrice a Day. *Boerh. Aphor.*

INFECTIO, in Medicine, is Contagion, or Infection.

INFELIX *Lignum*. A Name for Elder.

INFIBULATIO. Infibulation. It was a Custom, among the Romans, to infibulate their Singing-boys, in order to preserve their Voices; for this Operation, which prevented their retracting the Prepuce over the Glans, and is the very Reverse to Circumcision, kept them from injuring their Voices by premature and preposterous ideal Venery, serving as a kind of Padlock, if not to their Inclinations, at least, to their Abilities. It appears by some Passages in *Martial*, that a less decent Use was made of Infibulation among the luxurious Romans; for some Ladies of Distinction, it seems, took this Method of confining their Paramours to their own Embraces. *Juvenal* too, as I remember, hints at some such Practice. *Celsus*, a chaste Author, says, Infibulation was practis'd sometimes for the sake of Health, I suppose he means for the Preservation of it; for nothing destroys it more, than the filthy Practice this Operation seems intended to prevent. I believe Infibulation is not likely to be reviv'd: If, however, any one, who has suffered much in his Constitution by preposterous Venery, should be able to get Children, which is not very likely, and should be inclin'd to prevent the same Misfortunes in them by Infibulation, the Method of doing it is thus.

The Skin, which is above the Glans, is extended, and mark'd on both Sides with Ink, where it is to be perforated, and then suffer'd to retract itself. If the Marks recur upon the Glans, too much of the Skin has been taken up, and we must make the Marks farther; if the Glans remain free from them, they shew a proper Place for affixing a Fibula: Then they pass a Needle and Thread thro' the Skin, where the Marks are; and, tying the Thread together, take care to move it every Day, till the Parts about the Perforations are cicatrized; which, being perfectly effected, they take out the Thread, and put in the Fibula, which the lighter it is, the better. *Celsus, Lib. 7. Cap. 25.*

Authors have not determin'd what the Fibula of the ancient Surgeons was, tho', no doubt, they were, for different Purposes. In the present Case, the Fibula seems to mean a Ring of Metal, not unlike that which the Country People put thro' the Noises of Swine.

INFLAMMATIO.

That Disorder, to which we give the Name of *Inflammation*, or *Phlegmon*, is so call'd, because it produces Effects similar to those of Fire.

By means of Thermometers we know, that a larger Quantity of Fire is lodg'd in an inflam'd Part, than any-where else in the Body; and that, precisely, the same Effects are produc'd by it, as would be produc'd by the Application of elementary Fire. Thus, for Instance, when a sound Man puts his Hand too near a Fire, he will begin to perceive a greater Heat than usual, and the Part will gradually become red. If he puts it still nearer, a Tumor and Pain will be produc'd; and, if he continues to put it still nearer, the Pain will be greatly increas'd, the Epidermis rais'd in Blisters will be separated, and, at last, by the increas'd Action of the Fire, the Skin will be burn'd into an Eschar, which, being entirely mortify'd, must afterwards be separated from the live Parts by a Suppuration. Now, the same Symptoms happening in the same Order, succeed Inflammations; for an Inflammation in the Back of the Hand is accompany'd with Heat, Redness, Tumor, and Pain, all which are increas'd according as the Disorder is augmented. In a violent Inflammation tending to a Gangrene, the Epidermis is, in like manner, rais'd in Blisters.

Blisters, and gangrenous Crusts are form'd, which must afterwards be separated from the live Parts by Suppuration. If the Violence of the Inflammation proceeds still farther, all the Parts to the very Bone are render'd black, as if they had been burn'd to a Coal by live Fire; and, in this Case, a Sphacelus is said to be present. Hence *Hippocrates* call'd a burning Fever $\tau\delta\ \pi\upsilon\rho$, because, in that Disorder, such an Heat is often excited about the vital Parts, as to make the Patient believe, that a real Fire is lodg'd there. By this Circumstance, sudden Death is often produc'd. And, in a Fever of the most intensely burning Kind, that is, the Plague, whilst the Malignity of the Disorder is, by a Translation, conveyed to the other Parts of the Body, these are burned in the same manner as if the actual Cautery had been applied to them, as is obvious in pestilential Carbuncles, which afterwards fall off; by a Suppuration happening all round them, just as when the Part is burned by the Application of the actual Cautery. Thus the sagacious Antients, observing the Similitude between the Effects of Fire, and an Inflammation, gave the latter its Denomination from the former; since the Causes and Effects exactly correspond to each other. This Doctrine is beautifully confirmed by modern Experiments with respect to the Nature of Fire.

An Inflammation is a Pressure and Attrition of the red arterial Blood stagnating in the smallest Canals, produced by the Motion of the rest of the Blood, thrown into violent and forcible Commotions, by means of a Fever.

Here we have the Definition of an Inflammation from its Causes, though the Antients defined this Disorder from its Symptom. Thus *Galen*, in *Comment. 3. in Lib. Hippocratis de Fracturis*, informs us, that they defined an Inflammation, a preternatural, resisting, hard, red, and hot Tumor, accompanied with a pungent Pain, and generally with a Fever. But it is to be observed, that this Definition only regards Inflammations, which happen in those Vessels, which naturally contain the red Blood, or, at least, which, being dilated, are capable of receiving it. But what happens in an Inflammation of the more minute Vessels, we shall afterwards consider.

In this Definition Author, two things occur, which, when joined together, constitute the Nature of an Inflammation; that is, Obstruction, and an increased Celerity of the Blood flowing into the Part obstructed; for in an Inflammation the Blood stagnates, and cannot pass through the narrow Cavities of the Vessels, though pressed forward by an impelling Liquor. Hence it is obvious, that in this Case there is an Obstruction. The obstructing Matter is red Blood, but of the arterial Kind; because an Obstruction, properly so called, can only happen in the Arteries. The Parts obstructed are the narrowest Channels of the minute Ducts; because it is obvious, that the Molecules, incapable of passing through these, may be conveyed through the larger Cavities of the Vessels. These Molecules will, therefore, stop about the Ends or Terminations of the converging Vessels. But here we do not speak of the most minute Ducts of the human Body, but only of the narrowest Ramifications of the larger Vessels, which contain the red Blood, the thickest Part of the human Fluids. Hence these Canals are only called minute, as compar'd with the larger Vessels, but they are, at the same time, the largest among the minute Ducts; for the Extremity of the Artery containing red Blood is always larger than the Artery containing the Serum, which arises from it, and which, in consequence of the Smallness of its Diameter, naturally excludes the red Part of the Blood. Thus, in like manner, the Extremity of the Artery containing the Serum is, for the same Reason, larger than the Artery containing the Lymph which arises from it. Hence it is obvious, that a true Phlegmon can scarcely happen except in the minute Arteries containing the red Blood, or in the Arteries containing the Serum, so dilated as to receive it. But when Molecules, in consequence of their Bulk, stick in the narrow Cavities of the converging Vessels, the Fluid acting upon them, in consequence of the vital Motion, will necessarily compress them with a pretty great Force; for by the Action of the Heart and Arteries, the Blood is carried to the obstructed Parts with a Force sufficient to have conveyed it to the Extremities of the Body with a due Degree of Celerity. Hence the Pressure will be great, and renewed at every fresh Contraction of the Heart and Arteries. But, since these obstructing Molecules seem to remain immovably fix'd in the narrow Channels of these minute Ducts, it may, at first, seem improbable, that there should be any Attrition, which supposes the Motion of these Molecules backwards and forwards; but it is obvious, that these Molecules are not always absolutely immovable, but sometimes forced back to a wider Part of the Artery, by its Contraction, and, at other times, protruded into the narrow Cavities, by the Action of the Heart, which fills the Arteries with Blood. Hence there is, in this Case, a true and genuine Attrition.

What has hitherto been said, is equally applicable to Obstructions formed in the minute Ducts, by a Stagnation of the

red arterial Blood, as to Inflammations. Hence, in the Definition of an Inflammation, these Words are added, *by means of a Fever*. When an Inflammation seizes any considerable Part of the Body, or any of the Viscera, 'tis almost always found to be accompanied with a Fever. And it may, also, be asserted, that slight Inflammations, especially of small external Parts, are accompanied with a Fever; tho' Ophthalmias and inflammatory Quinsys are often found to be unattended with any Change or Alteration of the Pulse. *Galen*, in his Treatise *de Pulsibus ad Tyrones*, Cap. 12. has beautifully explained this, when treating of the Nature of those Pulses, which accompany an Inflammation. His Words run thus: "When an Inflammation is beginning, the Pulse is greater, more vehement, quick, and frequent, than in its natural State; in proportion as the Inflammation increases, all these Qualities are augmented, and the Pulse becomes sensibly harder." A little after, he subjoins; "This Inflammation is capable of changing the Pulse thro' the whole Body, according to the Bulk or Importance of the Part inflamed. If it should not affect the whole Body, there will, nevertheless, be a similar Pulse in the Part inflamed." Under this Limitation, we are, therefore, to understand the Assertion, that every Fever is accompanied with an Inflammation; for, if the Strength and Celerity of the Pulse are not increased thro' the whole Body, yet they will be so in the inflamed Part; and this is, as it were, a Fever of the Part itself, as *Galen*, in his Treatise *de Methodo Medendi ad Glaucon*, Lib. 2. Cap. 1. justly observes; for, after he has said, that there are various Kinds of Inflammations, he affirms, that almost all of them are accompanied with a Fever. Then he lays down the first Difference of Inflammations, which is that between the moist, and the dry Kind: "The moist, says he, is produced by a Fluxion of hot Humours to the Part; whereas the dry Kind is the Effect of a preternatural Heat, kindled in the Part, without any Congestion of the Humours: And this is, as it were, a Fever of the Part affected." 'Tis, also, confirmed, by the Opinion of the most ancient Physicians, that an accelerated Motion of the Fluids always accompanies an Inflammation. Thus *Celsus*, in his Preface, when recounting the various Sects and Opinions of Physicians, uses the following Expressions: "If the Blood is transfused into those Veins, which ought to contain the Spirits, it excites an Inflammation; and that Inflammation produces a Commotion, like that which happens in a Fever, as *Erasistratus* maintained;" where it is to be observed, that 'tis not expressly said, that a Fever is produc'd whilst the Inflammation is present, but only that such a Commotion, as happens in Fevers, is brought on.

Hence *Simson*, in his *System of the Womb*, has, with great Justice, given a Caution to Physicians, not to be deceived, by imagining that there cannot be an Inflammation where there is no Fever; since it often happens, that an Inflammation of the Stomach and Intestines produces fixed Pains, when no Fever can be observed by feeling the Pulse. He, also, affirms, that he has known spurious Epidemical Pleurisies afflict Patients for several Months, without a concomitant Fever, unless speedily removed by Venesection, and other Medicines proper for carrying off an Inflammation.

From what has been said, it is sufficiently obvious, that Obstructions have many things in common with Inflammations; for no Inflammation can be conceived without concomitant Obstruction. Besides, a violent Obstruction in some Vessels increases the Velocity of the Fluids circulating in others, which remain pervious and open; that is, produces a Fever. But as soon as a Fever accompanies an Obstruction, an Inflammation is present; which may, therefore, be called an Obstruction with a Fever, either in the whole Body, or some Part of it.

An Inflammation may, therefore, happen in the Extremities of the Arteries, or in the Vessels which convey the Serum and Lymph, or in other smaller arterial Vessels, which, in consequence of the Dilatation of their Mouths, have admitted the red Globules, or other thick Elements of the Fluids, but cannot convey them through their Extremities. If the Blood, also, is conveyed into those Veins, which ought only to contain the Spirits, an Inflammation is produced. *Celf.*

An Inflammation, therefore, or Phlegmon, properly so called, as is obvious from the Definition, can only happen in these Vessels which naturally contain the red Blood; or in those whose Orifices are in certain Diseases, observed to be so dilated, as to admit some Part of the red Blood. In the other smaller Vessels, the Elements of a thinner Fluid, concentered by whatever Cause, may, in like manner, so remain, as not to find a Conveyance through them; and a succeeding Fluid may, also, with a considerable Velocity, act upon these obstructed Parts; but, so long as no Redness appears in the Part affected, the Disorder is not called an Inflammation, but an Erysipelas, or an Oedema, attended with Heat, as we shall afterwards observe. But how far the red Part of the Blood may penetrate, or into what particular Number of decreasing Series of Vessels it may enter, are Points not

not as yet sufficiently ascertained by Experience. It is, however, certain, that the red Blood may, in certain Diseases, not only enter these Vessels, which, being next in Bulk to the Blood-vessels, contain the yellow Serum, but, also, those far more minute Vessels, which naturally contain only pellucid Fluids. Thus the White of the Eye, which, in a sound Person, almost resembles the Splendor of Pearls, upon the Approach of an Inflammation, often becomes totally red, and exhibits numberless Ramifications of small Vessels; which, being distended with red Blood, may be distinctly observed by the naked Eye, though in a natural State they contained nothing of a coloured Fluid. In violent Ophthalmias, I have often evidently perceived a Vessel full of red Blood pass through the highly pellucid Substance of the Tunica Cornea. But that the Vessels of the Cornea are smaller than those of the Adnata, is not to be doubted, since those of the former, in a State of Health, appear perfectly pellucid, with their Contents; and, when an Inflammation arises in the Eye, the minute Vessels, about the Disk of the Cornea, appear distended with red Blood, before the Cornea itself is affected; till, at last, by the Strength and Duration of the Disease, its Vessels, being gradually dilated, may admit the red Blood. Hence it is obvious, that a true sanguineous Inflammation may, sometimes, happen in highly minute and small Vessels.

As for the Passage here quoted from *Celsus*, it is certain, that the ancient Physicians, under the Name of Veins, comprehended not only the Veins, but, also, those Vessels by the Moderns called Arteries. *Erasistratus*, and many of his Followers, were of Opinion, that the Blood was not contained in the Veins furnished with a Pulse, or what we call the Arteries; but that these contained the Spirits, which produced the Pulsation in them. In the Days of *Galen*, several Physicians confidently affirmed, the same thing: And some asserted, that they could demonstrate, that the Aorta contained no Blood. But *Galen*, in the sixteenth Chapter of his seventh Book *de Anatom. Administrat.* beautifully ridicules this Notion, and shews it to be false, by accurate and satisfactory Experiments.

Hence, at least according to *Celsus*, it is obvious, that *Erasistratus* thought an Inflammation was present when the Blood passed from the Veins into the Arteries, naturally destitute of Blood, that is, when it was lodged in Parts where it ought not to be. But now, since the Circulation of the Blood is known, we admit of no such Doctrine: However, this Maxim is, in some Sense, to be admitted, since an Inflammation is produced when the Blood enters such Vessels as ought only to contain the thinner and finer Humours.

The Seat, therefore, of an Inflammation is every Part of the Body, in which there are reticular Distributions of Arteries, or the Origins of lymphatic and arterial Vessels.

After *Ruyfch* discover'd, that almost every-where in the Body the Arteries were distributed into highly minute Ramifications, and that almost in every Point the small Ramifications sent off from the larger Trunks had a mutual Communication with each other; it became customary with Physicians, to call these Distributions of Arteries *Reticula*, or *reticular Plexuses*; because the Interstices left between those Ramifications, which meet, and are mutually complicated with each other, very nearly resemble the Meshes of a Net. When this great Man, for many Years, applied himself carefully to the Cultivation of Anatomy, he often found, that the small Interstices left between the reticular Plexuses, which seemed to have no Vessels, contained a large Number of small Vessels, distributed almost in the same Order as before in the large Ramifications. But where-ever the Arteries are observed to be divided into minute Ramifications, the Molecules of the Fluid, becoming incapable of passing, either by Concretion, or Change of Figure, may stick there; or, by lessening the Cavities of these Vessels, the Passage of the Fluid, which ought naturally to flow in them, may be hindered. Hence Obstructions, and, in consequence of the increased Motion of the succeeding Fluid, Inflammations may be produced. Since, also, in almost every Part of the Body there are small Ramifications distributed from the Arteries containing the Blood, which, in consequence of their Smallness, exclude the red Part of the Blood, the Beginnings of these small Vessels being dilated, through an *Error Loci*, Part of the red Blood may enter these small Vessels, and remain, incapable of passing forwards, in their narrow Channels. Hence all the like Misfortunes will be produced.

Hence Inflammations may happen in the Arteries, Veins, Nerves, Membranes, Muscles, Glands, Bones, Cartilages, Tendons, all the Viscera, and, consequently, almost in all the Body; but no-where more frequently, or obstinately, than in the Fat.

Since it is certain from the anatomical Discoveries of the Moderns, that almost all the Parts of the Body are furnished with Vessels perceptible by the Eye, it is obvious, that an Inflammation

may happen in almost the whole Body, and in all the Parts here enumerated.

As for the Arteries and Veins; the Coats of these Vessels are composed of other smaller Vessels, as may be demonstrated to the Eye by anatomical Injections in the larger Trunks of these Vessels; and, in Animals killed immediately after long and fast Running, the whole external Surface of the Aorta has frequently appeared black, in consequence of too large a Quantity of Blood distending the minute Vessels, which, by a curious and truly surprising Texture, are distributed through the Membranes of this large Vessel.

As for the Nerves; these may be considered in two respects; either as they contain the tender Branches of the Brain, Cerebellum, and spinal Marrow; or as they consist of tough Vaginae, furnished with all kinds of Vessels, by which Vaginae the highly soft and pulpy Substance of the Brain, and spinal Marrow, is safely conveyed to all the Parts of the Body. It is not absolutely certain, that the highly minute and imperceptible Vessels, which constitute the Substance of a Nerve, properly so call'd, are at any time susceptible of an Inflammation; yet, since thro' these an incredibly fine Fluid is conveyed from the Brain, the Cerebellum, and spinal Marrow, it is not absurd to suppose, that an Inflammation may happen even in these: But it is sufficiently obvious, that a genuine Inflammation may happen in those larger Vessels, which are so palpably discovered by anatomical Injections, and which, by their Texture, constitute the Vaginae and Coats of the Nerves.

As for the Membranes; we know, from anatomical Injections, that those Membranes which were, by the Antients, accounted the most solid, and thought to be entirely without Blood, are nothing but a Congeries of Vessels.

As for the Muscles and Tendons; it is, from modern Discoveries, certain, that numberless Arteries are every-where distributed through the muscular Flesh: We, also, know, that Tendons, apparently the most solid, and entirely white, may, by an artificial Injection, be rendered totally red, not only on account of a Repletion of those Vessels, which constitute the Vaginae that cover the Tendons; but it is, also, certain, that many similar Vessels run between the Fibrils of the Tendons. Hence it is that Inflammations may happen in the Tendons; and that in violent Rheumatisms, where the Muscles are inflamed, so violent Pains are produced, upon making the slightest Attempts to Motion.

As for the Glands; it will amount to the same thing whether these are Convolutions of Vessels, or hollow Follicles, discharging, through Emissories, the Fluid collected in their Cavities, and, which, being secreted from the numberless small Vessels which are distributed through the Membranes of such Follicles, is conveyed into their Cavities; for in both Cases numberless arterial Vessels are said to constitute the Fabric of the Gland. Hence an Inflammation may happen in them, as we daily observe in the parotid, submaxillary, axillary, and inguinal Glands.

As for the Bones; under the Article *CAPUT* it is shewn, that the Vessels, carried from the Periosteum to the Bone, run between its Laminee, whilst others pass through particular Perforations, to the Diploe of the Cranium; and, in other Bones, to the Marrow. Hence the Separation of the corrupted Parts, and the Restitution of such as are lost, are to be ascribed to the Efficacy of the Vessels dispersed through the Substance of the Bone. An Inflammation may, therefore, be produced here, either in the arterial Vessels running between the Laminee of the Bone, or in the minute Vessels of the Marrow. Hence arise deep-seated and obstinate Pains, a Spina Ventosa, and other Disorders of a very terrible Nature. See the Article *Os*. *Galen*, in the second Chapter of his *Treatise de Tumouribus præter Naturam*, observes, that an Inflammation may sometimes happen in the Bones; for, after he has affirmed, that the Coats of the Vessels, the Membranes, Nerves, and Tendons may be inflamed, he adds these Words: "Wherefore an Inflammation may sometimes happen in the Bones, in such a manner that they are primarily and originally affected." From what precedes this Passage, it is sufficiently obvious, that *Galen* not only thought, that Inflammations of the exterior Parts might not only reach the Bone; but, also, that an Inflammation, originally beginning in the Bone, may sometimes propagate itself to the other Parts.

As for the Cartilages; next to the Bones are the Cartilages, many of which are, in Process of Time, transformed into Bones, as is obvious from the Doctrine of the Generation of Bones. But since, in those Bones, which were before Cartilages, there is a vascular Structure found, it is highly probable, that a similar Structure pre-existed in the Cartilages. Besides, *Havers*, *Ruyfch*, and other curious Anatomists, have, by their Industry, discovered Vessels in the Cartilages. Hence it is obvious, that an Inflammation may happen in the Cartilages, as well as in the Bones.

As for all the Viscera, and, consequently, almost all the Body; it is certain, that the Viscera consist of a most surprising Texture, which

which differs almost in every one of them; and the acute Diseases of the Viscera evidently prove, that an Inflammation, with all its Consequences, such as a Suppuration, Gangrene, and Scirrhus, have been sometimes observed in every one of them, the Heart itself not excepted. Hence we may justly conclude, that almost all the Body is subject to Inflammations, since it is certain from modern Discoveries, that almost all its Parts are of a vascular Structure.

As for frequent and obstinate Inflammations in the Fat; it is certain, that the Membrana Cellulosa is found in almost every Part of the Body, and receives different Names, according to the different Substances it contains: For, if a white granulated Matter, capable only of being fused by Heat, fills the Cellulæ of this Membrane, it is called the Membrana Adiposa; but, when the Matter contain'd in it almost dissolves spontaneously, it is called Membrana Pinguedinosa. But in those Parts of the Body, in which the Structure of this Membrane is most tender, and its Cellulæ so small, that their contained Fat escapes the Eye, it is only called simply Membrana Cellulosa; as, for Instance, in the Back of the Hand, and Forehead. How surprisingly this Membrane is diffused through the Body, will sufficiently appear, if we consider, that not only all the Muscles and Tendons are covered with such a cellular Membrane, but, also, that all the Fibres of the Muscles, so far as the Diligence and Patience of the most accurate Anatomists can carry them, are covered with similar cellular Vaginæ. Almost all the Vessels run along in such a cellular Substance, which, in some measure, also, constitutes the Structure of the Vessels and Viscera. Hence it is obvious, that Inflammations may very frequently happen in this Membrane, whether distinguished by the Epithets *Cellulosa*, *Pinguedinosa*, or *Adiposa*. And, when they happen in this Part, they are often so obstinate, as to be incapable of a Resolution, but generally tend to a Suppuration, or a Gangrene; for, as the Arteries dispersed through this Membrane in a State of Health, secrete a pinguious, unctuous, and oleous Substance, subservient to the Lubrication of the Parts, and deposite it in the so easily dilatable Cells of this Membrane, it is probable, that when these Vessels are dilated, or ruptured, by an Inflammation, the red Part of the Blood is discharged from them, and accumulated in the Cellulæ of this Membrane. Hence a red and hard Tumor, the Characteristic of a genuine Inflammation, is produced, and is almost always lodged only in the Membrana Cellulosa. Besides, it is sufficiently evinced by the Terminations of Inflammations, that they are most frequently seated in the cellular Membrane; for if a violent Inflammation is succeeded by a Suppuration, or a Gangrene, upon opening the Skin, a Collection of Pus, or a gangrenous Sordes, are almost always found lodged in the Membrana Adiposa.

This Stagnation is produced in the most minute Arteries, by whatever presses, distracts, distorts, ruptures, contuses, burns, corrodes, or corrugates the Extremities of the Vessels, whether conical, or cylindrical, in such a manner that the Diameters of their Cavities are less than those of the Particles of Blood which ought to pass through them. The same Misfortune is, also, produced by Heat, violent Exercise, sharp Bodies fixed in the Parts, Ligatures, incumbent Weights, acrid Substances taken inwardly, or applied externally, intense Cold, and strong Frictions: All the Causes of Wounds, Contusions, Corrosions, Fractures, Luxations, and Obstructions, also produce the same Effect.

In the Definition of an Inflammation, two things are considered; that is, the Stagnation of the red arterial Blood in the most minute Canals; and the Pressure and Attrition made by the succeeding Blood on these Parts, already obstructed by stagnating Blood. Now in this Aphorism are enumerated the Causes capable of producing this Stagnation in the most minute Arteries, which, however, are naturally capable of transmitting the red Part of the Blood.

The Arteries which contain the red Blood, after by lateral Ramifications its finer Part is secreted for various Uses, convey that Part of the red Blood, which, by the determinate Bulk of its Molecules, cannot naturally enter the small Vessels, to the Veins, with which they make so many continued Canals. Where, therefore, such a minute Artery terminates, there a Vein begins. But an Artery, from its greatest Largeness, through its whole Course, becomes gradually smaller; whereas a Vein, from the narrowest Part of its Beginning, becomes gradually larger, thro' its entire Course. Hence, in the Arteries, the Fluids move from the Base to the Apex of the Cone; whereas, in the Veins, they move from the Apex to the Base: For which Reason the Veins, as well as the Arteries, may be called Conical Canals. But, about the Part where the narrowest Portion of the Arteries is joined to the smallest Part of the Vein, the Canal seems, for some Length, to be cylindrical, and to have its Sides neither converging nor diverging; but, accordingly as we proceed farther, either in the Artery or Vein, the Canal assumes the Figure either of a direct, or inverted Cone. But at the very Part where the Artery terminates, and the smallest Part of

the Vein begins, the Canal is narrowest. Hence the Molecules of Blood, rendered incapable of passing by any Cause whatever, will, of course, most frequently stick here. Now, if we suppose, that the Extremities of the Vessels are, by any Cause, rendered narrower, there must necessarily happen a Stagnation of the Fluids, which cannot pass through these narrow Parts. From what has been said, we, also, see the Reason why, in the Aphorism, Vessels, both of a conical and cylindrical kind, are specified. The most minute Particles of Fluids circulating in Animals, and only visible by Microscopes, appear spherical, and, about the narrowest Parts of the Vessels, seem to be almost only single Molecules, which, however, pass with a kind of apparent Difficulty. Hence it is sufficiently obvious, that, when the narrow Extremities of the Vessels are lessen'd, the free Passage of the Fluids is hinder'd, and the Cavity of the Canal block'd up; since the Bulk of the Molecule surpasses the Diameter of the Vessels, through which it ought to pass: Hence happens an Obstruction, which is the Concomitant of every Inflammation.

Since a Section of the human Canals, perpendicular to their Axis, makes a Circle, a Figure which of all others contains the largest Area; it is hence obvious, that every Cause which changes the Figure of the Canals, produces a Stagnation of the Fluids, which ought to pass through their most narrow Parts. The most considerable of these Causes are here enumerated.

As for whatever presses the minute Arteries; whatever presses upon them must, of necessity, lessen their Diameters, retard the Circulation of the Fluids through them, and, by that very means, tend to induce a Stagnation.

As for whatever distracts or distorts them; the more any Canal or Vessel is elongated and stretched, the smaller its Cavity becomes; as we see in Glass Tubes, render'd flexible by a Lamp-heat, in order to be stretch'd: But this Circumstance must, in the very Nature of the thing, contribute to the Production of a Stagnation: Thus, when, in order to punish Malefactors, Weights are hung to their Limbs, or Pullics used to distort their Bodies, the subsequent Pain, Redness, and Inflammation, sufficiently testify, that this Elongation or Distraction produced a Stagnation.

As for whatever ruptures them; it is certain, that, in consequence of the Elasticity of the Vessels, their divided Orifices will spontaneously contract themselves, prevent the Egress of the Fluid circulating in them, and, consequently, induce a Stagnation, which, in its Turn, may lay a Foundation for an Inflammation.

As for whatever contuses them; since the Idea of a Contusion implies, an Accumulation of small Wounds, it is sufficiently obvious, from what we have just now said, that a Stagnation of the Fluids, and a subsequent Inflammation, may be produced by it: Besides, as a Contusion is always made by an hard and obtuse Instrument, injuring the Parts of the human Body, it cannot possibly happen without a proportionable Degree of Compression, which, by lessening the Diameters of the Vessels, retards the Circulation of the Fluids, and, by that means, tends to induce a Stagnation and Inflammation.

As for burning, corroding, or corrugating the Vessels; by all these Methods a Part of the Body is either entirely destroy'd, as by the actual Cautery, or strong Caustics: Hence, in the Circumference of such a Part, the live Vessels are obstructed, and hence a Stagnation and Inflammation ensue: Or, if these Causes should operate more mildly, the Solids are contracted, the Fluids inspissated, and render'd incapable of passing through many Vessels: A Circumstance by which Stagnations and Inflammations will necessarily be produced.

As for Heat; this may produce a Stagnation, when its Degree surpasses that which is found in a sound Body; for, by this means, the solid Fibres are dried, contracted, and render'd rigid: But, in proportion as the Rigidity of the Fibres is increased, the Contractility of the Vessels compounded of them is augmented, and their Cavities, consequently, lessen'd: Hence Obstructions must necessarily happen. Besides, if we consider, that, by intense Heat, the most fluid Parts of the Humours are dissipated, and the Blood, and its Serum, coagulated into solid Masses, which can hardly afterwards be resolv'd, it will be sufficiently evident, that intense Heat is to be justly accounted among the Causes of an Inflammation.

As for violent Exercise; an Increase of Motion, in the very Nature of the thing, produces a proportionable Increase of Heat, which we have just now shewn to be capable of producing an Inflammation.

As for sharp Bodies fixed in the Parts; these, when lodged in any Part, not only injure and compress the adjacent Vessels, but, also, produce an uninterrupted Pain, and continual Irritation: Hence, it is obvious, an Inflammation must ensue, especially, if such a Body is lodged near those Parts which are furnish'd with an exquisite Sensation; for, in this Case, the Disorder is seldom removed, till, after a Suppuration, Nature throws out the offending Body.

As for Ligatures; these, by compressing the Vessels, diminish their Cavities; but they act principally on the Veins, both because their Coats are less firm than those of the Arteries, and because

because most of them, generally, lie near the Surface of the Body: But, when Ligatures are made very tight, they, also, compress the Arteries, as well as the Veins: Thus, in Venesection, if the Ligature is but moderately tight, the Blood, upon opening the Vein, bursts out with Violence; but, if it is so tight, as, at the same time, to compress the Artery, scarcely any Blood is discharged from the Orifice; so that when Surgeons observe this, they slacken the Ligature, in order to promote a Discharge of the Blood. For the same Reason, any Weight resting externally on the Body, by compressing the Vessels, produces Obstructions.

As for acrid Substances, whether taken inwardly, or applied externally; almost all the Parts of the human Body, whether internal or external, seem capable of being contracted by the Application of acrid Substances, as may be shewn by many Experiments: Thus, for Instance, if a Drop of Vinegar is put into the Eye, the Eye-lids are, without the Concurrence of the Person's Will, so powerfully contracted and shut, that they cannot be separated without a considerable Force. Acrid Poisons, taken internally, contract the Stomach and Intestines: Hence violent Inflations are produced, by the Retention, and subsequent Heat of the Air. When, by means of a Pledget, I applied a small Drop of Oil of Vitriol to the bare Intestine of a live Dog, it was immediately contracted in the same manner as if a Ligature had been applied to it. Now, 'tis probable, that these acrid Substances, if conveyed to the smaller Vessels, must, also, in them produce similar Contractions: Hence Obstructions, and, upon an Increase of the Circulation, Inflammations, may be produced. Thus, also, when an acid Taint has affected the Blood, Itchings are produced, and Obstructions, Pustules, and Ulcers, observ'd about the cutaneous Vessels. When in dropical Patients the Serum, stagnating in the Legs, begins to grow acrid, the Skin is frequently inflam'd by it. If acrid Substances, especially when externally applied, are capable of producing a Solution of Continuity in the Vessels, they must, from what has been said, be still more capable of producing an Inflammation.

As for intense Cold; 'tis certain, that by Cold the solid Parts of the human Body are lessen'd in all their Dimensions, by which means the Cavities of the Vessels must necessarily be diminish'd: 'Tis, also, certain, that by Cold the Molecules of the Blood are united with each other. By both these Effects of Cold, not only Obstructions and Inflammations, but, also, sudden Gangrenes, may be produc'd, as is shewn under the Article GANGRENA. Hence the Reason is obvious, why Country-people are so frequently seiz'd with a Pleurisy, by foolishly exposing themselves to a cold Air, after they are over-heated by excessive Labour; for the Air, which is cold when inspired, almost immediately touches the intercostal Spaces, since nothing is interpos'd between it and them, but the slender Membrane of the pulmonary Vesicles; whilst, at the same time, the cold Air externally surrounding the Body, perhaps not duly cover'd, increases the Disorder.

As for strong Friction; though Friction is of great Efficacy in removing Obstructions, yet when it is either too violent, or too long continued, it is capable of producing a hot Fever in the coldest dropical Patient, as is shewn under the Article FEBRA; for, when the Motion of the venous Blood is augmented, the Heart contracts itself more forcibly and quickly, by which means the Circulation of the Blood is augmented; and, if this Circulation should be too brisk, 'tis most certain, that it may produce Inflammation; since the brisker the Motion, the greater the Heat; and the greater the Heat, the greater the Dissipation of the fine and fluid Parts of the Humours in consequence of which a Stagnation and Inflammation may be produc'd. Thus, by strong Friction, we observe, that the Parts of the Body are render'd hot, tumid, and painful; but these Symptoms denote a present Inflammation, which, however, may be soon removed, unless the Friction is long continued, or excessively violent. In Storms at Sea, when the Ropes are suddenly drawn through the Hands of the Sailors, the violent Attrition produces so intense a Pain and Heat, that the Epidermis is instantaneously rais'd in gangrenous Vesicles. Besides, if we consider, that by Frictions the red Part of the Blood is forc'd into small Vessels, which it does not naturally enter, as is evinc'd by the Redness produc'd by Friction, it will be still more obvious, that excessive Frictions are capable of producing Inflammations.

Now all the Causes of Wounds, Contusions, Corrosions, Fractures, Luxations, and Obstructions, may contribute to the Production of Inflammations, may be understood from what has been already said.

A Stagnation is, also, produced by whatever blocks up the Passages, and, at the same time, applies to the Parts any thing of an acrimonious Quality, such as oleous, saline, and acrid Substances.

'Tis certain, that the whole internal and external Surfaces of the Body are pervious to a perspirable Matter; for, in every Moment of Life, a fine and subtle Exhalation is forced thro' minute arterial Ducts, whose Extremities are open in the external Surface of the Body. This Exhalation, when reverberated by a

smooth Plate of Metal, or a cold Mirror, is condens'd into a fine Lymph, the Whole of which exhales without leaving any Faeces. Now, if by any means those Passages, through which the perspirable Matter is convey'd, should be obstructed, they will necessarily be dilated by the impel'd Fluid; and, when thus dilated, they will admit the grosser Humours: Hence an Obstruction and Stagnation will necessarily ensue. When the most minute of these exhaling Vessels are thus obstructed, as the next in Bulk to these cannot convey the thinnest Part of the Fluid they contain to the former, they will, in like manner, be dilated; and thus the Disorder may be propagated from these minute exhaling Vessels, to those which contain the Blood.

Since this highly fine exhaling Fluid, almost in every respect, resembles Water, and since Oil hinders, or at least retards, the Ingress of Water into minute glass Tubes, hence it, perhaps, is, that an Erysipelas and Inflammations are so often produced by the external Application of Oils to the Skin. Hieronymus Mercurialis, in his Treatise de Arte Gymnastica, Lib. 1. Cap. 8. informs us, that, among the Antients, the Bodies of the Wrestlers were anointed with Oil, lest their Strength should be dissipated by profuse Sweats; and that, after bathing, Unctions were used, lest the Moisture, convey'd to the Body by the Bath, and the native Heat, should make their Escape through the relaxed and open Pores. In many Persons the Skin is immediately inflam'd by the Application of a pinguious Plaster, or Ointment; and the internal Parts of some Persons seem to have something of a similar Disposition, since they immediately become feverish upon eating fat Substances, and especially Bacon. If, at the same time, there is any Degree of Acrimony in these pinguious and oleous Substances, they may produce very obstinate Inflammations. Oil of Almonds, which is highly mild, when recently express'd, in the Summer-time, becomes rancid in a few Days, and acquires such a Degree of Acrimony, that a small Quantity of it, swallow'd, forthwith inflames the Fauces. The same holds true with respect to Butter, either become rancid, or fried too long in a Pan. But an acrid Substance, mixed with one of a pinguious Nature, is so much the more hurtful, because it tenaciously adheres to the Part to which it is applied, and cannot be easily wash'd away by aqueous Liquors. The Berries of the Mezereon, or Spurge-olive, and the Fruit of the Spurge-laurel, when pressed with the Fingers, discharge a pure pinguious Oil; which, when tasted, at first, appears mild and gentle, but, immediately after, inflames the Fauces to such a Degree, that it is ready to suffocate any one who tastes it without due Caution. In like manner it has been observ'd, that the acrid empyreumatic Oils, by strong Fire obtain'd from Hartshorn, Guaiacum, and other Substances of a like Nature, as, also, the express'd Oils, so much recommended for curing Rigidities of the Joints, arising from Infarctions of Matter, have, when imprudently applied to the Skin, produced the worst of Inflammations, and sometimes Gangrenes; for in these there is, at once, an oleous Tenacity, by which the Vessels are obstructed, and a strong Degree of Acrimony, by which the irritated Vessels are constricted.

Stagnations are, also, produced by such things as coagulate the Blood, such as violent Exercise, and a Derivation of the finest Parts from the Blood, by Sweat, Urine, Saliva, and Diarrhoeas. Coagulating Substances, also, produce the same Effect.

An Obstruction is formed by the Excess of the Fluid to be transmitted, above the Cavity of the Vessel transmitting; so that its general Causes must be too great a Narrowness of the Vessels, or an increased Bulk of the Molecules of the Fluid to be transmitted, or both these in Conjunction. We have already treated of those Causes, which produce a Stagnation in the most minute Arteries, which convey the Blood, so far as it proceeds from a Coarctation of these Vessels; but we now come to consider those Causes, which, allowing the Capacities of the Vessels to remain the same, so coagulate the Blood, that it cannot pass through the smallest Parts of the most minute Arteries. Among these we shall, first, consider

Violent Exercise. In the Blood there is always a Tendency to Concretion, which is still the stronger, the greater the Action of the Vessels upon the Blood they contain. The Blood of a robust Man, taken from the Vein, immediately concretes; and, when left in a State of Rest for some time, exhibits a large Quantity of a red concreted Substance, but very little of a fluid Serum; whereas 'tis directly otherwise in the Blood of a tender and sickly Girl. But the Whole of this depends on the weaker or stronger Action of the Vessels on the Blood. Now, by an increas'd Motion, or Exercise, the Action of these Vessels, within a certain given Time, both more frequently and forcibly exerts itself upon their contain'd Fluids. Hence a proportionably greater Condensation of them will ensue: Besides, by an Increase of Motion, the most fluid Parts of the Humours are dissipated, because, in the same time, a greater Quantity of the Fluid to be separated from the Blood is applied to the Organs destin'd for Secretion and Excretion; by which means the Concretion of the Blood is augmented. An Increase of Motion is, also, succeeded by

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by an Increase of Heat, by which, in like manner, the Blood is so inspissated, that it can no longer pass through the smallest Parts of the most minute Arteries. Hence, in acute Diseases, when the Heat is much increased, the injured Actions of the Brain, and a difficult Respiration, immediately inform us, that the Blood is so inspissated, that it can no longer freely pass through the Brain, and the Organs destin'd for the Purposes of Respiration.

As for a Derivation of the finer Parts of the Blood by Sweat; Experience has taught us, that red Globules constitute the thickest Part of the human Blood; and that a large Quantity of a fine and thin Fluid is interpos'd between the Globules, in order to hinder their mutual Contact, and prevent their too easy Concretion. When, therefore, by any Cause whatever, this most thin and fine Part is carried off from the Blood, the larger Molecules, becoming contiguous, and being most compress'd about the smallest Parts of the Arteries, are there united, and form'd into Concretions. Hence an Obstruction of the Canals, and a Stagnation of the Fluids, ensue. Thus, in phthisical Patients, walled with Night-sweats, the Blood begins to stagnate about the cutaneous Vessels, and to produce inflammatory Pustules. For this Reason *Hippocrates* condemned Sweats in the Beginning of acute Diseases. And *Sydenham* observ'd, that Sweats always proved injurious in the Beginning of the Small-pox.

As for a Derivation of the finer Parts of the Blood by Urine; hysteric and hypochondriac Patients often discharge an incredible Quantity of thin Urine, like Water, after their Minds have been ruffled by the Transports of some excessive Passion. But, when the Blood is thus deprived of its diluting Vehicle, its thicker Part begins to be concreted, and violent Inflammations sometimes ensue; or the Crassamentum of the Blood, deposited about the abdominal Viscera, produces obstinate Obstructions. Hence Melancholy so frequently succeeds hysteric or hypochondriac Disorders.

As for a Derivation of the finer Parts of the Blood by the Saliva; the Saliva, spontaneously flowing from the Mouth of a sound Person, is sufficiently thin naturally; and only rendered more tenacious, by an Admixture of the Mucus of the Mouth and Fauces, promoted by the Motion of the Tongue, and adjacent Parts. And, when this Saliva is chymically examined, 'tis found to be almost entirely aqueous; since, from sixty Ounces of Saliva, by a gentle Fire, almost fifty-nine may be drawn off, which have apparently all the Qualities of Water. The Saliva, in like manner, is not concreted in boiling Water; so that it must necessarily be thinner than the Serum of the Blood. By a copious Discharge, therefore, of Saliva, a large Quantity of a thin and fine Fluid is evacuated from the Body; in consequence of which, the Blood becomes incapable of circulating with its usual Freedom. For this Reason, those who, either thro' a bad Habit, or the Abuse of Tobacco, lose large Quantities of Saliva, are so often afflicted with obstinate Obstructions of the Intestines. After all the Parts of the Mouth have been long covered with thick Aphthæ, when these fall off, an incredible Quantity of Saliva is discharged from the dilated Vessels. And, unless this immoderate Discharge is removed by proper Remedies, the Patients are exhausted to such a Degree, that they either fall a Sacrifice to their Disorders, or afterwards labour under chronic Diseases; since, when this finest Part of the Blood is lost, Obstructions are very easily form'd. Nor to this Doctrine can it be objected, that under a Salivation, protracted for several Weeks, a large Quantity of Fluids is daily evacuated, without any subsequent Inspissation of the Blood; since, in this Case, it is not the Saliva, properly so called, but the dissolved Humours, which are discharged under the Form of a purid Urine. Hence the finest Part of the Blood is not lost, and its thicker Part rendered incapable of circulating; but there is a real Dilution even of the red Part of the Blood; for which Reason, People are able to bear a Salivation, provided, by a good Diet, fresh Humours are supplied, whilst those before in the Body are evacuated.

As for a Derivation of the finer Parts of the Blood by Diarrhoeas; it is sufficiently obvious, that by these the finer Parts of the Blood may be, also, discharged from the Body. For this Reason, if, in a burning Fever, the Patient is seized with a violent Diarrhoea, *Hippocrates*, in his *Coac. Prenot.* and elsewhere, pronounces it a mortal Sign; for, as in this Disease the inspissated Blood already begins to sicken in the minute Arteries, the Disorder is rendered incurable when the finer Parts of the Fluids are carried off by Stool.

As for coagulating Substances; these are either of an acid, austere, or spirituous Quality; though, at the same time, all Acids do not coagulate the Blood, since tartish Wines, Vinegar, the Juice of ripe acid Fruits, and Butter-milk, rather dissolve it; but tollid Acids, as also Preparations of Sea-salt, and Nitre, induce a Coagulum on the Blood. When these Acids are injected into the Veins of a live Animal, the Blood is forthwith concreted into large Clots, which, being conveyed to the Right Ventricle of the Heart, thro' Veins which become gradually large, and being thence propelled to the Lungs, excite at first a great Uneasiness, and soon after bring on Death. The Mouths, however, of the bibulous Vessels do not easily admit

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these Acids of an highly acrid Quality; since they immediately contract themselves on the Application of a far more gentle Stimulus. When the black Bile, sometimes so acid as to corrode as powerfully as Aqua-fortis, corrodes the Vessels, and is mixed with the Blood, sudden Death is frequently produced by the Coagulation of the Blood. Some austere Substances, also, induce a very strong Coagulum on the Blood; such as Alum, and the various Species of Vitriol. Spirituous Substances are, also, capable of coagulating the human Fluids; for, in Chirurgical Operations, 'tis sufficiently known, that Alcohol, applied to divided Vessels, stops the most violent Hæmorrhages, by means of the Coagulum it induces on the Blood. The Serum of Blood, by an Affusion of Alcohol, is forthwith indurated. Hence 'tis obvious, that those who indulge themselves much in these fermented Spirits, expose themselves to terrible Misfortunes.

A Stagnation is, also, produced in the lymphatic, arterial Vessels, first, by all the Causes, which so enlarge their Orifices, that the grosser Parts of the Blood enter them; which, being propel'd farther, arrive at narrower Parts, where they undergo all the Changes mentioned in the preceding Aphorism. Among the Causes of this Kind, are the Laxity of the Vessel at its Beginning, and the violent Motion of the arterial Fluid. And, secondly, by all the Causes common to Inflammations of whatever kind.

We have hitherto considered the Causes, by which the free Circulation of the thickest or red Part of the Blood thro' the smallest Arteries is hinder'd, which act either by lessening the Cavities of the Vessels, or rendering the Fluid, which ought to pass thro' them, incapable of being transmitted. An evident Example of this is found in an Ophthalmia, in which the whole Adnata, and even the Cornea, are red; the Vessels being filled with red Blood, in such a manner as to be perceptible to the naked Eye, tho', naturally, there is no red Blood contained in them. Such an Inflammation must, therefore, have been preceded by certain Causes, capable of dilating these Vessels in such a manner as to admit the red Blood. But it is sufficiently obvious, that the red Part of the Blood, after it has enter'd these slender Vessels, must create Obstructions, since, in its Progress, it continually arrives at narrower Parts of the converging Vessels. Hence, in this Case, a Stagnation will be produced, tho' the Cavities of the Vessels remain the same, and the Molecules of the Fluid to be transmitted are not enlarged. Such a Disorder is justly styled *Error Loci*, since the red Blood, entering the minute Vessels, becomes stagnant, and is not capable of passing thro' the narrowest Parts of these Vessels; for the Whole of the Disorder consists in this, that the red Blood is lodged in a Place, where it should not naturally be. The same Misfortune may happen in all the Parts of the Body, in which the small Vessels, containing the finer Parts of the Fluids, are derived from larger Vessels: So that an *Error Loci* can never happen in the Vessels, naturally containing the red Blood; since, in sound Blood, no Particle is larger than a red Globule: But, in the other decreasing Series of Vessels, an *Error Loci* may happen. How far the red Blood may, possibly, penetrate, is not yet certain from Experience; only this we know, that in Diseases it enters far smaller Vessels, than those which contain the Serum of the Blood, since it sometimes enters those of the Tunica Cornea. But as all that Fluid, which, in sound Blood, is thinner than the red and serous Globules, is called Lymph; so the Vessels, thro' which it moves, are called lymphatic Vessels; and these are either Veins or Arteries. But an Obstruction cannot happen in the Veins, unless, by an external Compression, the Fluid, which ought to pass thro' them, is intercepted. Hence, by an *Error Loci*, the thicker Parts of the Fluids may be lodg'd in the lymphatic Arteries; under which Name we comprehend all those Arteries, which naturally exclude the red and serous Globules, and only admit the finer Parts of the Fluids.

To the Production of an *Error Loci* 'tis therefore requisite, that the Beginnings of the lymphatic Arteries should be so dilated, as to admit the red Part of the Blood. Now 'tis shewn under the Article *Fibra*, that the Largeness of the Vessels depends on two different Causes; that is, the Resistance of the Sides of the Vessels, and the Momentum or Quantity of Motion of the impel'd Fluid; and is, for this Reason, in a Ratio compounded of the direct Ratio of the Impetus of the impel'd Fluid, and the inverse Ratio of the Resistance of the Sides. If, therefore, a greater Laxity is by any Cause produc'd in the Beginning of a small lymphatic Vessel, it will be dilated, tho' the Impetus of the impel'd Fluid continues the same. And, on the contrary, the same will happen, if the Impetus of the impel'd Fluid is augmented, whilst, at the same time, the Firmness of the Vessels continues the same. But this Dilatation will happen most considerably when these two Causes concur. See the Article *Fibra*; where Reasons are, also, given, why, by an accelerated Motion of the arterial Fluid, the Beginnings of the Vessels are enlarg'd. This Doctrine is sufficiently confirm'd by Experience; for a Part of the Body, exposed to the Stream of tepid Water, becomes more tumid and red than in its natural State, by means of the Ingress of the red Blood into the relaxed

relaxed small Vessels: And, after violent Running, we observe the whole external Skin to become red, and the Eyes Bloodshot; in consequence of the Ingress of the red Blood into improper Vessels, preternaturally dilated by the increased Imperus of the impelled Fluid.

When the red Blood has enter'd the lymphatic Vessels, it is sufficiently obvious, that all those Causes, which were capable of lessening the Cavities of the larger Vessels, may produce the same Effect, when acting on the smaller Vessels. But these Causes have been already enumerated.

Hence, a similar Disorder may happen in every conical Vessel, where the Fluids are convey'd from wider to narrower Parts; for, as in the red Blood, so, also, in the Lymph, there is, perhaps, a Part thicker than the rest.

In sound Blood, newly taken from the Body, by means of a small Wound, and received into minute Glass Tubes, Microscopes enable us to distinguish different Parts; and, by their means, we are, also, render'd capable of observing the Motion of the Fluids in the Vessels of the pellucid Parts of Animals; for Globules are perceived swimming in a thin pellucid Fluid, which itself appears homogeneous. But it seems highly probable, that, in the thin pellucid Lymph of the Blood, there are some Parts thicker than the rest; which, in consequence of the determined Bulk of their Masses, are contain'd in Vessels peculiar to themselves, and cannot, naturally, enter into such Vessels as are smaller; for, unless the red Globules were so large, that, in a State of Health, they could not enter the Vessels destin'd for containing the Serum, and such as are smaller, it is sufficiently obvious, that all the Blood would be deriv'd to the smaller Vessels, and all the larger ones render'd empty. The same holds true in the Vessels which convey the Serum of the Blood, and the other smaller Vessels of the human Body: Hence, when in any Disease the Blood becomes too fluid, all the Humours are either dissipated, or accumulated in the larger and smaller Cavities of the Body, as we may observe in dropsical Patients: But, in Cases of this Nature, the large Vessels always collapse, for want of that due Quantity of thick Blood which used to distend them. In like manner, all the decreasing Series of Vessels, from the largest Blood-vessels to the smallest in the Body, seem to contain Fluids proper to their respective Series, and which contain Molecules so large, that they cannot enter the next smallest Order of Vessels, but are contained in those peculiar to themselves: Hence, if, by any Cause, the Cavities of these converging Vessels are lessen'd, or the Molecules which, when single, pass through their narrowest Parts, are united, an Inflammation, not of a red, but of a pellucid Colour, may ensue in these minute Vessels. Besides, if the Orifices of a smaller Series of Vessels should, either by a Relaxation, or an excessive Motion of the impelled Fluids, be so dilated as to admit the grossest Molecules of the Vessels next in Bulk, the like Disorder will be produced from an *Error Locii*. As many intermediate Series of Vessels therefore, as there are between the largest and the smallest, so many different Kinds of Inflammations there may be; and, in each of these intermediate Series, these Inflammations may be of two Sorts; either such as arises from their own proper Fluid becoming incapable of Circulation, either in consequence of the enlarged Bulk of their Molecules, or the Narrowness of the Vessels; or such as arises from an *Error Locii*, by reason of the Ingress of the grosser Molecules of the larger Vessels into the dilated Beginnings of such as are smaller: But, in the largest Blood-vessels, an *Error Locii* can never produce an Inflammation; since, in the Blood, no Part is found larger than a red Globule. It is highly probable, that Rheumatisms, arthritic Pains, and Gouts, are produced by an Inflammation in the minute Vessels.

From what has been said, appears the true Difference between a Phlegmon, an Erysipelas, an Oedema, and a Scirrhus with Inflammation.

With respect to a Phlegmon; tho' the Antients, by this Name, meant any Inflammation in general, yet, in Process of Time, Physicians afterwards confined the Word to a preternatural Tumor, which was red, resisting, hot, and accompanied with a Pulsation, and Pain, in the softest Parts, and a Fever, either of the whole Body, or the Part affected. Now a Phlegmon is produc'd by a Stagnation of the red Blood about the Extremities of the Arteries, whilst the rest of the Blood, propelled by the Force of the Heart and Arteries, acts with a greater Impetus on the obstructed Parts: A Phlegmon may, therefore, happen in the narrowest Parts of the Arteries, which convey the red Blood, which rarely occurs; or it may arise from the red Blood, through an *Error Locii*, forc'd into the lymphatic Vessels, or those destin'd for the Serum; which is far more frequently observ'd. But it is obvious, from what we have before observ'd, that a legitimate Phlegmon is principally lodged in the Membrana adiposa.

As for an Erysipelas; this Disorder, which seems highly analogous to a true Phlegmon, is, by Galen, in *Lib. 2. Method.*

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Medend. ad Glaucon. Cap. 1. defined in the following Words: "A Defluxion, *says he*, of Blood, and yellow Bile, mixed together, and preternaturally hot, or of Blood alone, but intensely hot and thin, is called an Erysipelas, which is much hotter, and of a more yellow Colour, than an Inflammation: And, if it is touch'd, the Blood, which appears exquisitely thin and red, easily recedes, and returns again. But an Erysipelas is not so painful as an Inflammation; nor is it accompanied with a Pulsation, Compression, or Distention, like those of any of the Species of Inflammation. Sometimes an Erysipelas creates but little Trouble, especially when it is dispersed through the Skin only, without affecting the subjacent Flesh: This Species of Disorder, which most frequently occurs, is a legitimate Erysipelas." And a little after he subjoins, that "A legitimate Erysipelas is only a Disorder of the Skin." But, as the Colour of the Part affected with an Erysipelas seem'd to be a kind of Mixture of Yellow and Red, the antient Physicians accused the Bile as the principal Cause of an Erysipelas; but we are now convinced, that the Serum of the Blood is naturally of a yellowish Colour: Hence, when a small Quantity of red Blood is, with a great deal of Serum, lodged in the obstructed and inflamed Vessels destined for the Serum, this yellowish-red Colour is produced in the Part affected. It is, at the same time, sufficiently obvious, how great an Affinity there is between an Erysipelas, and a Phlegmon; since they only differ with respect to the Bulk of the obstructing Molecules: For, in a Phlegmon, the red Part of the Blood is accumulated in the distended and obstructed Vessels; whereas, in an Erysipelas, the Serum of the Blood, principally, mixed with a small Quantity of the red Part, remains pent up, and incapable of circulating in the Vessels. A Phlegmon is principally seated in the Membrana Adiposa; whereas an Erysipelas affects not only the external Integuments of the Body, but, also, the internal membranous Parts. It is, also, obvious, that an Erysipelas may degenerate into a Phlegmon, when, for Instance, the Vessels are so dilated as to admit a larger Quantity of red Blood, so that the Disorder is propagated to the Membrana Adiposa; and that sometimes such an Inflammation may arise, as preserves a kind of middle State between an Erysipelas, and a Phlegmon; in which Case the Antients gave it a Name compounded of both Disorders: For to the Words already quoted from Galen, that Author subjoins these following: "As that Species of the Disorder, *says he*, which affects the subjacent Flesh, and is not produced by a Defluxion of absolutely thin Humours, is not only an Erysipelas, but a Disorder compounded of an Erysipelas and a Phlegmon, in which the Symptoms peculiar to an Erysipelas are sometimes the most prevalent, this Disorder is, by the later Physicians, called a phlegmonoide Erysipelas. Sometimes, on the contrary, the Symptoms of a Phlegmon are most prevalent; in which Case, the Disorder is called an erysipelatous Phlegmon: But, if the Symptoms of neither palpably prevail over each other, but appear equal, a Phlegmon and Erysipelas are said to be complicated with each other."

As for an Oedema; tho' by this Word the Antients meant simply a Tumor in general, yet it afterwards came to be generally appropriated to a soft Tumor without Pain, easily yielding to the Touch, without any Change of Colour in the Skin; and generally produced by aqueous Humours distending the Membrana Adiposa: But the Oedema here treated of is of a quite different Nature; and, in order to distinguish it from the common Oedema, has the Epithet *hot* generally bestow'd upon it: For we have already shewn, that a true Inflammation may happen in those arterial Vessels, which are so small as to exclude the Serum, and the red Part of the Blood. A painful Tumor then, which is hot, but not red, somewhat yellowish, and sometimes entirely white, is called an hot Oedema, which only differs from an Erysipelas in this, that it is seated in far smaller Vessels: It is also, called an erysipelatous Oedema; because it approaches very near to the Nature of an Erysipelas. It frequently appears in the Face and Head, in which Case, it is commonly called *Rosa bullata*.

Since, therefore, this hot Oedema is a legitimate Inflammation, seated in the smallest lymphatic Arteries, it is always to be apprehended, lest, perhaps, such a State is induced in the finest Lymph of the Blood, as, by rendering it stagnant, obstructs the Vessels in which it ought to move: Hence the Functions, especially of the Brain, which depend on the free Circulation of the Humours through the smallest Arteries, may be disturbed; whether the Disorder is produced originally in the Brain, or, by a Translocation, convey'd from the external to the internal Parts. Besides, if this Species of the Disorder is violent, it destroys the tender Vessels, and speedily tends to a Gangrene.

As for a Scirrhus, with Inflammation; a Scirrhus is a hard uneven Tumor, almost without any Pain, and principally seated in the glandulous Parts of the Body. If this Tumor is confirm'd, and of long standing, it consists of such a Matter as can neither be resolv'd by any Methods hitherto known, nor separated from the sound Parts by a benign Suppuration. Hence it is obvious, how dangerous an Inflammation is, in the Parts which are contiguous to a Scirrhus, or in the Teguments which cover it;

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since, in this Case, the Scirrhus soon degenerates into a Cancer. *Galen, in Comment. in Text. 30. Epidem. Hippocrat. Lib. 6.* beautifully distinguishes between the Resistance of a Phlegmon, and the Hardness of a Scirrhus, in the following Words: "A Phlegmon, says he, is not a hard, [σκληρόν] but a resisting [ἀντίτυπον] Tumor, just like Bags fill'd with Air, or any liquid Substance."

When the Causes, already mention'd, have produc'd a Stagnation in the Vessels, then the Force of the Blood, impel'd by the vital Powers, produces such Effects as are the Signs of an Inflammation.

In every Inflammation, seated in whatever Series of Vessels, there are two Things to be observ'd: That is, the Stagnation of the Fluid, in consequence of the lessen'd Cavities of the Vessels, the Concretion of its constituent Molecules, or an Error Loci; and the vital Force of the Heart and Arteries, propelling the Humours with an increased Velocity to the obstructed Vessels. When these two Circumstances concur, an Inflammation is produc'd. So long as there is only a Stagnation of the Fluid, there is only an Obstruction, which is the antecedent Cause of an Inflammation; but its procaccatic or immediate Cause is the increas'd Motion of the Fluids acting upon the obstructed Part. In the mean time, there happen some Changes in the inflam'd Part, which, if duly adverted to, afford the diagnostic Signs of a present Inflammation. But these Signs are consider'd and enumerated in their due Order, in the following Paragraph.

First, the minute and hardly visible Arteries, being obstructed, are enlarg'd by the distending Blood; by which means a red Tumor is produced. Secondly, the same happens to the arterial lymphatic Vessels, before pellucid and invisible; by which means the Redness is increased, especially when the tender Vessels and Vesicles in the Membrana Adiposa are filled with a thick Blood, deprived of its more liquid Parts. Thirdly, the distended Vessels are ready to burst: Hence arises the pungent Pain in the minute nervous Fibres dispers'd thro' them. Fourthly, the Liquids and Solids are rendered highly compact: Hence arise the Hardness and Resistance of the Part. Fifthly, by means of the accumulated red Part of the Blood, and the strong Impulse of the succeeding Fluids, the Part assumes a shining red Colour. Sixthly, by means of the Resistance, Pulsation, Collision, and Coarctation of the as yet pervious Vessels, by the Tumor, there is a violent mutual Attrition produced between the Parts of the Fluid among each other, between them acting upon the Solids, and the Solids upon them: Hence arise the Heat and Burning. Seventhly, the Pulsation is produced, because the Impetus of the Blood propel'd from the Heart, acting upon the Extremities of the obstructed Vessels, dilates their Sides. Eighthly, by the Irritation of the Fibres, and the accelerated Motion of the Blood, because it is return'd thro' the Veins, and stopt in many Arteries, the Pulse is render'd quick, and a Fever accompany'd with Thirst, Heat, Watching, Weakness, and Uneasiness, produced.

1. 'Tis sufficiently obvious, that obstructed Vessels must necessarily be extended and dilated; for that Force by which the Heart forces the Blood into the Arteries, makes their Sides recede from the Axes of their respective Canals, because they are full, and converge, or become gradually narrower. The Resistance, therefore, about the Extremities of the Arteries, and their Fulness, are the principal Causes, why they are dilated by the impel'd Blood. But in the obstructed Canals there is the greatest Resistance, and, at the same time, the greatest Plenitude; because nothing can pass thro' their Extremities: Here, then, the greatest Dilatation must necessarily ensue. Besides, if we consider, that an Inflammation accompanies an increas'd Motion of the Blood, it will be sufficiently obvious, that the Canals must be still more extended, when an Inflammation is present, than in a simple Obstruction. But when this Dilatation is a producing in those Arteries, which naturally contain the red Blood, or, at least, when after their Dilatation they are capable of receiving it, 'tis evident, that the Tumor arising from the Distension of the Vessels must be red; for, if the Obstruction, or Inflammation, is seated in the smallest Vessels, the red Part of the Blood, as we have already observ'd, may be excluded from them, even during the greatest Dilatation they could bear without a Rupture. And, 'tis not impossible to conceive, that, in Vessels so minute, the Tumor, produced by their Dilatation, should be so very small, as not to fall under the Cognizance of our Senses. But a genuine and legitimate Inflammation always happens in those Vessels which are either naturally, or by Dilatation, capable of admitting the red Part of the Blood, as is obvious from the Definition of an Inflammation already given. Besides, an increas'd Degree of Heat, the Concomitant of every Inflammation, as we shall afterwards shew, contributes to the Augmentation of the Tumor; for 'tis certain, from Experience, that an Increase of Heat expands Bodies in all their Dimensions.

2. The Arteries conveying the Serum are like so many Ramifications from a common Trunk, distributed from the smallest Arteries, which contain the Blood. But the Sides of the Arteries, which contain the Blood, cannot be distended without, at the same time, distracting and enlarging the Orifices of the Arteries destin'd for the Serum which arise from them. Hence the red Part of the Blood may enter the dilated Orifices of these Vessels: The same will hold true, with respect to the lymphatic Arteries deriv'd from those destin'd for the Serum; for that these latter may be so distended, as to admit the red Part of the Blood, is sufficiently obvious in Ophthalmias, as we have before observ'd: Hence, therefore, 'tis manifest, that the Tumor and Redness must be increas'd. Nor would it seem probable, that, from a Distention of all these Vessels, such enormous Tumors as frequently appear in violent Inflammations should be produced; but we have already shewn, that obstinate Inflammations happen nowhere more frequently than in the Membrana Adiposa, whilst not only the tender Vessels of this Membrane are loaded with red Blood, incapable of circulating, but, also, the red Part of it poured thro' the dilated Orifices of these Vessels into the Cellulæ of this Membrane. Hence the Membrana Adiposa, easily capable of Expansion, is frequently distended in a very surprising Manner. *Galen, in his Treatise de Tumoribus præter Naturam, Cap. 2.* beautifully takes notice of this Origin of the Tumor in a Phlegmon; for, after he has affirm'd, that no Tumor can be produced without an Accession of some new Substance to the Part affected; or, unless the Parts, being, as it were, fus'd by the great Heat, were transform'd into a kind of Vapour, capable of distending it to a larger Bulk, just, for Instance, as Water, by Heat, reduced to Vapours, may possess an immense Space, he proves, that in a Phlegmon the Tumor is not produced by such a Rarefaction of the Fluids, as to convert them to Vapours. "For, says he, if the Part affected with a Phlegmon is laid open, a large Quantity of Blood is discharg'd, and the whole Part is spongy, and full of Blood; but such a Vapour is neither then, nor afterwards, discharg'd." And, in the End of the same Chapter, he subjoins these Words: "But, in Inflammations, all the Parts are fill'd with Blood, discharg'd through the Coats of the Vessels, and, like Dew, mix'd with every Part of the Flesh." That, by the Word Flesh, *Galen* meant the Membrana Adiposa, is sufficiently obvious from several Passages of *Galen*; for, in the Chapter just quoted, he observes, that the Tumor, which accompanies an Inflammation, is of a quite different Nature from that which is the Effect of an enlarg'd Habit of Body; and uses the Word *παλυσαρκία*, in order to denote Corpulence, or Fatness.

But, whilst the red Part of the Blood enters the smaller Vessels when dilated, the Serum and finer Lymph will remain with it in those Vessels. But the red Part alone will remain fix'd in the narrow Chancels of the Vessels, whilst the other finer Parts of the Blood, being compressed between this resisting Obstacle, and the impelled Fluids, will be carried off in lateral Ramifications. Hence the red Part alone will be more and more accumulated in the obstructed Vessels; by which means the Redness of the inflamed Part is increased.

3. When, therefore, the Vessels, obstructed by a stagnant Liquor, are distended by the Imperus of an impelled Fluid, their Coats, and, consequently, the nervous Fibres distributed thro' them, will be distracted: Thus Pain is produced. But since the largest Vessels among those of the most minute Kind, that is, the narrowest Parts of the Arteries, conveying the red Blood, are not equal in Thickness to the tenth Part of an Hair, 'tis obvious, that the Distraction of the nervous Fibrils, dispers'd thro' the Coats of such Vessels, must excite a Pain like that which affects the smallest Point of the Body; for which Reason it is called a punctory Pain: But this small Artery, destin'd for the Conveyance of the red Blood, far exceeds the Bulk of an Artery destin'd for the Serum or Lymph; in which, however, by an Inflammation, a similar Distraction, and a Pain possessing a still smaller Space, are produced. Hence, tho' an hundred of these small Vessels should be inflam'd, the Pain seems to affect only one Point, and is produced by the Impetus of the impel'd Fluid, which so distends them, that the nervous Fibres, which constitute their Sides, are in Danger of being ruptur'd. Hence, when, in a violent Pleurisy, the Patient is blooded till he faints, the Pain ceases entirely, or, at least, is much diminish'd.

4. The human Blood, when left in a State of Rest, is separated into two Parts, that is, a red concentered Mass, and a fluid Serum, in which this red Part swims. But there are two Causes, which principally prevent the Concretion of the Blood; that is, its perpetual Motion, and the Interposition of a thinner Fluid between the red Globules, in order to prevent their mutual Contact. But when this red Part becomes stagnant, either in the Blood-vessels, or those which are smaller, when dilated, the most fluid Parts are express'd from it, as we have already observ'd. Hence, an Union and Compression of the red Globules to each other are produced; and, as they are flexible, their spherical Figures will be so chang'd, that they will come into a great many Points of Contact, and, consequently, begin to cohere proportionably

tionably stronger. Hence, as these Causes continue to act, this red concreted Substance will be accumulated in the distended Vessels, as also, in the cellular Substance of the Membrana Adiposa: And by these means a greater Hardness and Resistance of the inflam'd Part must necessarily be produced: And as the distended Vessels compress those adjacent to them, in consequence of the lessen'd Cavities of these last, the Disorder will be propagated thro' all the inflam'd Part. For this Reason Hippocrates often us'd the Words, *Hardness accompanied with Pain*, for an Inflammation. Thus, in his Prognostics, 71. when treating of an Inflammation of the Bladder, and the Disorders produced by it, he says, *Κύσις ἢ σκληρά τε καὶ ἐπώδυναι*, "hard and painful Bladders." And in other Places, as *Hollerius*, in *Comment. in Coac. Prænot.* remarks he distinguishes a Phlegmon from other preternatural Tumors, by the Hardness and Pain with which it is accompanied.

When the thinner Fluid is totally express'd, the red Part alone remains accumulated in the distended Vessels. Hence, if all other Circumstances are alike, the Redness is the greater, the more violent the Inflammation is. But the Skin, which in most Parts of the Body is lax and moveable, is render'd highly tense by the Membrana Adiposa, which is stuffed and tumid with stagnant Blood. Hence the Skin becomes smooth and shining; for such a Tension of the Skin is always attended with a kind of bright and shining Colour.

6. 'Tis certain from Experience, that not only a considerable Heat, but, also, actual Fire, may be produced by the mutual Attrition of Bodies on each other. 'Tis, also, certain, that by such an Attrition the greater Heat is produced, the more rigid and elastic the Bodies are, the more forcibly they are applied to each other, and the brisker their Motion is. 'Tis true, indeed, that Water, or any other Fluid, interposed between Bodies in a State of mutual Attrition, prevents so great a Degree of Heat as would be otherwise produced. Hence it would seem, that Heat could not be readily produc'd by the Attrition of our Fluids with the Canals in which they move. But if we consider, that the Globules of the Blood are not only elastic themselves, but, also, move with a rapid Course through elastic Canals, and are only pressed almost single through the narrowest Parts of the Arteries which convey the Blood, and that consequently, the finer Parts being carried off by lateral Ramifications, they produce a strong Attrition with the Sides of the Vessels, it will be sufficiently obvious, that Heat must be generated by this Attrition. Hence, in robust Persons, whose Blood is thick, a greater Heat is always observ'd, than in those whose Blood is thinner, and less elastic. For the same Reason a brisk Circulation of the Blood through the Vessels is productive of a proportionable Degree of Heat. Nor is it to be objected, that, in the inflam'd Part, the Blood continues stagnant in the obstructed Vessels; for, by an Experiment of Mr. *Leeuwenhoek's*, mention'd in his *Experiment. & Contemplationes*, 'tis obvious, that such an obstructing Molecule is, at the time the Heart does not act, repel'd by the Contraction of the Artery, and immediately after propel'd to the narrow Part through which it could not pass, by the Systole of the Heart, expelling the Blood into the Arteries. Hence 'tis obvious, that such an obstructing Molecule may move backwards and forwards in the obstructed Vessel. But, since from what has been said, 'tis certain, that the finer Fluids are expressed, the thick and stagnating Part accumulated, and continually condens'd, and, at the same time, the Motion of the Fluids accelerated in the inflam'd Part, the Reason will be sufficiently obvious, why so great an Augmentation of Heat must necessarily ensue. But the adjacent Vessels, as yet not obstructed, will be compress'd, and consequently have their Cavities lessen'd, by the dilated and inflam'd Vessels. Hence in these, also, the Attrition will be increas'd, partly on account of their lessen'd Cavities, and partly by reason of the increas'd Celerity of the Fluid circulating through them; for if, among an hundred Vessels, fifty should be obstructed, the Fluids, unless a Stagnation should happen, will circulate with so much the greater Celerity through the rest. All these things, therefore, concur, by which we are certain from Experience, that a greater Degree of Heat may be produced; for the Blood, when its most liquid Parts are express'd, is concreted almost into a solid Mass, which, by the strong Action of the Vessels, and the Impetus of the propel'd Fluids, is continually more and more condens'd. The Vessels compress'd by the adjacent tumid ones are, at the same time, more forcibly applied to the Fluids they contain, and the Motion of the Fluids through the Vessels is accelerated. Hence we see, that an Inflammation, both in its Causes and Effects, resembles a Fire, from which it derives its Name.

7. Since from modern Discoveries 'tis certain, that the human Body is almost in every Point furnish'd with Arteries, all of which are dilated when the Heart is in its Systole, but next Moment contracted when the Heart is in its Diastole; 'tis obvious, that there is a Pulsation in almost all the Parts of the Body, every Moment of Life. But we do not advert to those Motions, though very strong, which are always carried on by the same stated and uninterrupted Law: But, so soon as they deviate from this Law, we forthwith become sensible of them.

Thus the strong Pulsation of the Heart, so easily to be felt by applying the Hand to the Breast, is not perceived by a sound Person. But when, by the Passions of the Mind, violent Exercise, or any other Cause, this Pulsation recedes from its natural Order, the Heart is forthwith perceived to palpitate. 'Tis not, therefore, to be wonder'd at, that a Pulsation, before not perceptible, should be perceived in the inflam'd Part; for the Blood, by the Force of the Heart, projected into the Arteries, obstructed about their Extremities, employs its whole Force in dilating them. Hence the Sides of the Arteries must necessarily recede more from the Axes of their respective Canals. But, when the Action of the Heart ceases, the Arteries re-act with so much the more Force, the more they have been distended. The Pulsation, therefore, in the inflamed Part, being preternaturally increased, both with respect to its Strength and Celerity, is distinctly perceived.

8. When the Extremities of the Arteries are obstructed, the Fluids contain'd in the Veins corresponding to these Arteries are conveyed back to the Heart; but, being afterwards expel'd from that Organ, they cannot pass through the obstructed Arteries, but must, with so much the greater Velocity, be conveyed through the pervious and unobstructed Arteries; for the Quantity of the Fluid to circulate through the Vessels is not diminished, but the Number of these Vessels, through which it ought to pass, is only lessen'd. Hence 'tis obvious, that the Velocity of the Fluid, to be conveyed through the other pervious Vessels, must be increas'd: But it appears, at the same time, that, by this Cause, such an increased Velocity, in the Motion of the Fluids, cannot be produced, as shall be observable by the Physician, unless the Part affected is of such a Bulk, that the Number of obstructed Vessels compar'd with those which are pervious and open, are considerable enough to induce a remarkable Alteration; for, if the thousandth Part of the Arteries should be obstructed by an Inflammation, the Increase of Celerity requisite to convey the Blood through the other pervious Vessels is not easily perceiv'd. There must, therefore, be another Cause, why a Fever often accompanies or succeeds an Inflammation, though it should only affect a very small Portion of the Body. Thus in a Paronychia there is frequently a strong Fever, whilst the Inflammation only affects a very inconsiderable Part of the Body; for this Reason an Irritation of the Fibres is specified in the Aphorism. 'Tis certain, that Pain produces a Fever, for which Reason the most painful Inflammations are accompanied with the strongest Fevers; for such as are little or hardly at all painful, are often without any Degree of a Fever. Hence the Fever seems principally to be excited by the Irritation of the nervous Fibres distributed thro' the inflamed Vessels, or the adjacent Parts compress'd or distracted by them. That there is such a Tendency to Irritation in our Vessels as is capable of accelerating the Circulation of the Humours, is sufficiently obvious from several Observations; for whilst, in acute Diseases, the resolv'd Matter of the Disorder flows through the Vessels, in order to be deposited by a Translocation in other Parts, or expelled from the Body by critical Evacuations, great Commotions are frequently produced in the Body, and the Pulse is accelerated and disorder'd in a surprising manner. Whilst the Chyle, generated from too large a Quantity of Aliments, such as the Patient is not accustom'd to, or such as are acrid, or of hard Digestion, circulates with the Blood through the Vessels, a Fever is produc'd; which frequently shews, that an Irritation of the Fibres may produce a Fever.

But the Fever thus produced is accompanied with the principal Symptoms of a Fever; such as Thirst, Heat, Watching, Weakness, and Uneasiness. But we must observe, that these Symptoms do not accompany every Inflammation, but only appear when the whole Mass of Blood has acquir'd such an inflammatory Spissitude, that it cannot, without some Difficulty, pass through the smallest Vessels; for 'tis certain, that in sound Blood there is a natural Propensity to Cohesion, which is still the greater, the more robust the Person is. But as long as this Tendency to Concretion can be surmounted by the Energy and Efficacy of the Vessels and Viscera, so long Life remains safe. Thus we daily observe, that, in acute Diseases, the Blood so degenerates as scarcely to remain any longer fluid, and is forthwith concreted as soon as the Attrition of the Vessels, which prevented its Concretion, ceases. Thus, in a burning Fever, Drops of Blood, falling from the Nose, are forthwith concreted. And these Drops, sometimes, so obstruct the open'd Arteries of the internal Nose, as entirely to frustrate the salutary Effort of Nature attempting the Solution of such Diseases by profuse Hæmorrhages. Hence Hippocrates, in his *Coac. Prænotiones*, justly condemns these small Drops as a bad Symptom: And, in the first Book of his *Epidemic*, he gives us Instances of three Persons, who died after having discharged a small Quantity of Blood from the Nose, on the fourth and fifth Days. When, therefore, this Propensity of the Blood to Concretion begins to be increased, 'tis sufficiently obvious, that it must, with Difficulty, pass through the smallest Arteries. Hence a greater Resistance is made to the Heart, and since the Lungs must immediately receive and convey through the narrowest Parts of the pulmonary Artery, the Blood expel'd from the Right Ventricle of the Heart,

Heart, the smallest Degree of such a beginning Concretion is perceiv'd in the Lungs. Hence, by an increas'd Respiration, the Patients endeavour to procure a Passage for the Blood, thus disorder'd, through the Lungs. Then arises that Uneasiness which is a bad Sign in all acute Diseases, especially those of the inflammatory Kind: The Respiration becomes laborious and difficult, and the Patients testify their uneasy State, by continually changing the Posture and Situation of their Bodies. This is the *dyssœcia* of Hippocrates, which, though it may be produced by other Causes, yet frequently draws its Origin from a Concretion of the Blood.

From what has been said, 'tis obvious, that a Phlegmon may be known by these Signs; that it is a red Tumor, attended with a pricking Pain, and Pulsation, hard, shining, hot, and accompanied with a Fever, either of the whole Body, or, at least, of the Part affected.

This is a Species of the Disorder as yet not arriv'd at its full Height.

All the Signs enumerated in the preceding Paragraph are observed in a Phlegmon not as yet arrived at its full Height, but which is approaching to it; for Physicians have, in all Diseases, observ'd three Periods, or Stages; the Increase, the State, and the Decline. The Increase is that Stage, in which all the Symptoms are still increasing: The State is, when they are arriv'd at their full Height, and are not observ'd to be either sensibly increas'd or diminish'd: And the Decline is, when both the Violence and Number of the Symptoms are diminish'd; for, when a Phlegmon is arriv'd at its State, it then begins to be dispos'd to various Terminations, either in Health by a Resolution, for Instance, or in other Disorders, a Suppuration, a Gangrene, a Sphacelus, or a Scirrhus. But, then, most of those Phenomena, which accompany a Phlegmon not as yet arriv'd at its full State, are charg'd; new Symptoms, before not present, are brought on. Thus the Redness, Tension, Pain, and Hardness of a Phlegmon, begin to be diminish'd, when it tends to a Gangrene; at last they entirely cease, and the Sensation of the Part is deaden'd; it assumes a pale, cineritious, or brown Colour; then it becomes flaccid, and Pus- tules full of Ichor succeed. In a Phlegmon, therefore, as well as in other Disorders, these Stages are carefully to be adverted to; that something certain may be determin'd, both with respect to the Diagnostic, the Prognostic, and the Intention of Cure.

In Inflammations, Blood freely discharg'd from a large Orifice made in a Vein, and receiv'd in a Balon, when it becomes cold, forms a white, hard, thick, and rigid Pellicle, almost like a Swine's Skin.

When, in violent Inflammations, Blood is taken from the Veins, a pretty surprising Phenomenon appears therein. Every one knows, that Blood, received in a clean Vessel, as it flows from the Vein, is soon after coagulated, and then separated into two Parts; that is, a thin yellowish Liquor call'd Serum, and the red concreted Part generally floating in this Serum, like an Island. But, in most inflammatory Disorders, the superior Part of this Island is cover'd with a white, and somewhat blueish Pellicle, frequently some Lines thick, firmly adhering to the Island, and often so tough, that it can hardly be divided by a Razor. But, because, in the Blood of Persons labouring under a Pleurisy, such a coriaceous Pellicle is frequently observed, Physicians have, for this Reason, call'd such Blood pleuritic Blood, tho' the Pellicle is, also, frequently observ'd in other Disorders. Various Authors have made surprising Observations, with respect to this Phenomenon. Thus Sydenham, in his *Treatise de Pleuritide*, observes, that if the Blood does not flow horizontally from the Vein, but, running along the Skin, falls perpendicular, tho' with a pretty quick Motion, there is not then such a coriaceous Pellicle produced on the Blood: and that incomparable Author ingenuously confesses, that he was ignorant of the Cause of this Phenomenon. He observes, at the same time, that in Cases of this Nature the Patients were not so much reliev'd, as if the Blood had been forcibly discharged in a full Stream, and been cover'd with this Pellicle. He, also, tells us, that the Formation of this Pellicle is prevented by whatever hinders the free Discharge of the Blood from the Vein; and that the Patient is less reliev'd by such a Venesection. And what seems more surprising is, that tho' the Blood is freely discharged from a large Orifice, yet, if it is agitated with the Finger, this Pellicle is not form'd. The Origin, therefore, of this Pellicle in the Blood seems to be sufficiently obscure. Some are of Opinion, that it is produced by the Serum of the Blood rendered prone to a greater Concretion by the Disease. But this Pellicle of the Island, which floats in the Serum, always retains the superior Part. Others are of Opinion, that this Pellicle is form'd of crude Chyle, as yet not elaborated into perfect Blood. This is the Opinion of the accurate *Simpson*, in his *Dissert. de Re Medica*. But, I think, it may be objected to this Doctrine, that the Chyle, when mix'd with the Blood, and not sufficiently elaborated, always swims fluid in the Serum of the Blood, but does not adhere to the Island. The same Author affirms, that if a Liga-

ture is tightly apply'd to the Arm or Thigh, and, after three or four Hours, a Vein so open'd, that the Blood is freely discharg'd, this Pellicle will always be form'd; as, also, in the Blood of pregnant Women. And, for the Reason of it, he advances, that, for some time after the Application of the Ligature, the Blood is stop'd in the obstructed Vessels; and that, about the Uterus of pregnant Women, the Blood, in some Degree, stagnates, or, at least, moves very slowly. To speak my Sentiments freely, I am in Suspense what to determine, with respect to this tenacious Pellicle always adhering closely to the red Part of the Blood. Some celebrated Physicians have been of Opinion, that this Pellicle was produced, when, by an increas'd Velocity of the Circulation, the condens'd Blood was rendered more dispos'd to a Concretion; and, consequently, that it is not the predisposing Cause, but rather the Effect of the Disease. But I myself have often seen such a Pellicle form'd on the Blood of the most sound and robust Persons, when, in the Spring, Blood has been yearly taken from them. And, in a weak Man, who, in order to prevent a Spitting of Blood, to which he was subject, was bled every three Months, I always observ'd such a Pellicle. There was, therefore, a Disposition of the Blood to generate this Pellicle, tho' no Inflammation was present. On the contrary, in the most violent inflammatory Disorders, such a Pellicle has sometimes been found wanting, which, however, is always look'd upon as a bad Sign.

In proportion as the Disease increases, the same Train of Symptoms we have already enumerated, are proportionably augmented, the express'd Lymph is separated, and the red Part of the Blood condensed.

All the Symptoms already enumerated, draw their Origin from this, that the concreted Fluid sticks in the narrow Parts of the Arteries, whilst, at the same time, the Impetus of the more quickly impel'd Blood acts upon the obstructed Parts. If, therefore, the Toughness of the obstructing Matter is increased, or if the same Misfortune should happen in a large Number of Vessels, and increase the Quantity of Motion in the impel'd Fluid, it is sufficiently obvious, that all these Symptoms must be by these means augmented. Hence arise the greater Swelling of the Part affected; the deep-red Colour inclining to a Purple; the burning Heat; the intense Pain from the Fibres so distracted, that they are ready to be burst; and an highly shining Colour of the tense Part. And since the Blood, forced into the obstructed Vessels, cannot pass thro' them, the finest Part of it will be carry'd off by lateral Ramifications, the red Part alone will remain stagnant, and, being apply'd to the obstructing Matter, and compacted to it by the Impetus of the impel'd Fluid, the Quantity of the obstructing Matter will be, by this means, continually increas'd, and, consequently, not to be removed without proportionably greater Difficulty.

If the circulating Humours are mild, their Motion not excessive, the obstructing Cause not too much confirm'd, the Obstruction itself small, and that especially in the Arteries, or Beginnings of the lymphatic Vessels; if the Canals are moveable, and a sufficient Quantity of diluting Lymph is contain'd in the Blood, the concreted Humours are render'd fluid, those that were stagnant put in Motion, and the Inflammation is terminated by Resolution.

Every Disease terminates either in Health, some other Disorder, or Death. This general Rule holds in Inflammations, and is the principal Circumstance, by which their various Events are to be estimated. When an Inflammation terminates in such a manner, that no Disorder remains, and all the Functions of the Part affected are restored to their natural Soundness, without any succeeding Disease, then a Cure is said to be performed. But, if the Inflammation degenerates into a Suppuration, the former is indeed removed; but another Disorder, that is, an Abscess, succeeds it. The same holds true in Cases where the inflam'd Part is indurated into a Scirrhus. But when an Inflammation is so violent, as totally to prevent the Influx and Efflux of the vital Fluids, the Inflammation indeed ceases, but is succeeded by a Gangrene, and afterwards by a Sphacelus, which is a true and legitimate Mortification of the Part.

The most desirable Termination, therefore, of an Inflammation, is what Physicians call Resolution. When, for Instance, by means of the remaining Principle of Life, and the Use of proper Medicines, the stagnating Matter, lodg'd in the obstructing Vessels, is so resolved, or the Vessels, in which 'tis contain'd, so disposed, that it may pass into the Veins, or be forced back into the larger Vessels; so that, the Vessels remaining entire, a free Circulation of the Humours thro' Canals before impervious is restored; and the concreted Part of the Fluids, being now resolved, and mix'd with the circulating Humours, is without any Difficulty capable of passing thro' these narrow Channels, which, according to the stated Laws of Health, it ought to pervade. When these happy Circumstances concur, the Inflammation is said to be terminated by a Resolution.

We are, therefore, carefully to inquire into those Signs which denote the Possibility of such a Resolution; for a widely different Method

Method of Cure is requisite, when 'tis certain, that any other Termination of the Inflammation is to be expected. The Signs of the Possibility of such a Resolution are these following.

When the circulating Humours are mild. All the Humours of the human Body, except those of the excrementitious Kind, and, perhaps, the Bile, are of a Quality so mild and gentle, that the Eye, or bare Nerves, in recent Wounds, can bear their Contact without any Sense of Pain. This was requisite, that, in a State of Health, the Fluids might, with a due Imperus, be carried through the Vessels, without injuring them. Since, therefore, the Resolution of an Inflammation supposes the Motion of the stagnating Fluids, and the restor'd Fluidity of such as were concentered, without any Destruction of the Vessels, 'tis sufficiently obvious, that, in this Case, there can be no great Acrimony of the Juices; for, whilst the Blood, by the Force of the Heart, is pressed into the small obstructed Vessels, and by them repressed when the Heart is in its Diastole, there must be, as it were, a continual Attrition of the Blood upon the Sides of these Vessels: If, therefore, the Blood abounds with Particles of an acrid Quality, 'tis sufficiently apparent, that these Vessels must be resolved and destroyed. This is the Reason why, in Patients of a scorbutic Habit, the slightest Inflammation, tho' produced in the Legs by external Causes, cannot be cured by Resolution, but almost always degenerates into an ulcerous State and Condition. The same is, also, observ'd to hold true in all other cacochymic Habits, where there is an Acrimony of the Juices.

When the Motion of the Fluids is not too violent. When an Obstruction happens, the obstructed Vessel is, by the Impulse of the vital Fluid, extended, dilated, attenuated, and, at last, its Cohesion destroyed, even when the Celerity of the circulating Fluids is no greater than it usually is in a State of Health. Now 'tis sufficiently obvious, that when the Impetus of the Humours upon the obstructed Part is increased, the Cohesion of the obstructed Vessels must be proportionably sooner destroyed. But, in order to the Resolution of an Inflammation, 'tis requisite the Vessels should remain entire. When, therefore, an Inflammation is accompanied with an highly accelerated Motion of the Fluids, no Hopes of a Resolution are to be entertained.

When the obstructing Cause is not render'd too solid. Too quick a Circulation of the Juices is not only injurious, as it may break the obstructed Vessels, but, also, because, by its means, the obstructing Molecules are, with proportionably greater Force, compacted and united to each other. But to the Resolution of an Inflammation 'tis necessary, that the obstructing concentered Matter should be again resolved into those Molecules, by the Union and Combination of which it is form'd: But the more thoroughly the thin Fluid, hindering the mutual Contact of the grosser Molecules, is express'd, and the more strongly these Molecules are compressed and united to each other, the more firmly they will cohere, and their future Resolution become proportionably the more difficult. But, when the Velocity of the Circulation is increased, the finer Parts of the Fluids are dissipated, the grosser Parts united, and the Causes, combining the Molecules lodg'd in the obstructed Vessels, more frequently applied to these Molecules in a certain given Time. This is the Reason why, in Pleurifies, and other Disorders, where there is a violent Fever of about twelve Hours Continuance, Physicians despair of a Resolution, and direct their whole Intentions of Cure to the Concoction and Excretion of the inflammatory Matter.

When the Obstruction is small, and that especially in the Arteries or Beginnings of the lymphatic Vessels. An Obstruction is said to be small, either with respect to the Place it possesses in the obstructed Vessel, or because it is only lodg'd in few Vessels of the affected Part. Thus, for Instance, if, in the dilated Beginning of one of the Vessels destined for the Conveyance of the Serum, a red Globule should remain incapable of passing, such an Obstruction will be far more easily removed, than if this Globule had penetrated and made its Way to the narrowest Parts of such an Artery. Thus, also, if the greater Number of the Vessels of any Part of the human Body should be obstructed, each of these, being dilated, will, of course, compress and lessen the adjacent Vessels: Hence the Resolution of such an Obstruction will always be proportionably more difficult. But, all other Circumstances being alike, the Resolution of an Inflammation in the larger Vessels is, of all others, the most easily obtain'd; for Venesection, and most of the other Remedies for an Inflammation, exert their Efficacy principally in the larger Vessels. Thus, for Instance, if the red Part of the Blood remains stagnant in the narrowest Part of an Artery, destined for the Conveyance of the Blood, or, thro' an Error Loci, has enter'd the Vessels destin'd for the Serum, or the lymphatic Vessels, which are next in Bulk to them, this obstructing Matter must be so resolved, or the obstructed Vessel so relax'd, that it may pass thro' it; or the obstructing Matter must be repelled from such narrower to wider Parts: But a red Globule of Blood, according to the Observations of *Leewenhoeck*, is easily reduced to the serous Globules, of which it is composed. Thus a serous Globule may, in like manner, be resolved into other smaller Globules. Such an Obstruction, therefore, in the Arteries destin'd for the Blood, or for the Serum, or the Beginnings

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of those appropriated for the Lymph, may be resolved. But if a red Globule of Blood should enter far smaller Vessels, whose Beginnings are dilated, tho' it should be resolved into serous or smaller Globules, it cannot, however, pass thro' the narrowest Parts of such Vessels. Hence, in such a Case, the Difficulty of a Resolution is sufficiently obvious. Another Remedy of great Efficacy in resolving Inflammations is, by liberal Venesection, so to diminish the Quantity of the Blood, and weaken the Imperus of the succeeding Fluids, that, by the proper Contraction of the Vessel, the obstructing Matter may be forced from a narrower to a wider Part. But this Effect depends entirely on the Reaction of the Vessels, when the distending Cause is removed; for which Reason it must be most efficaciously produced in the largest Vessels, which have the most firm and elastic Coats: But, in the most minute and tender Vessels, no great Degree of Benefit is to be expected from this Circumstance. Hence the Reason is obvious, why, in order to the Cure of an Inflammation by Resolution, 'tis requisite that the Obstruction should not be seated in the most minute Vessels. Practical Observations sufficiently confirm this Doctrine, but in no Instance more palpably or beautifully, than in Inflammations of the Eyes, where the inflamed Vessels are subjected to our Senses; for so long as only the Vessels of the Tunica Adnata are red, without any apparent Disorder in the Cornea, there are great Hopes of the Possibility of a benign and gentle Resolution, without the Disadvantage of any remaining Misfortune. But when the highly tender and pellucid Vessels of the Cornea, being dilated, admit the grosser Humours, the Disorder will never be totally resolved, but a Supuration will always ensue, or a dark Speck remaining, will, for a long time, spoil the Beauty of the Cornea, or even continue during the Patient's Life.

When the Canals are moveable. In order to the Preservation of Health, 'tis necessary that the Canals of the human Body should be capable of yielding to the impel'd Fluids, and of returning to their former Largeness, when the distending Cause ceases to act. This is called the Mobility of the Canals. Now there are two Circumstances by which the due Mobility of the human Canals is diminish'd, and sometimes totally destroyed; when, for Instance, their Sides are so relaxed, that they easily yield to the Fluids impel'd by the Force of the Heart; but, when the Action of that Organ ceases, have so little Strength and Vigour, that they cannot propel the Blood impel'd from the Heart to them. On the contrary, so great a Rigidity is sometimes produced in the Sides of the human Canals, that they will not suffer themselves to be sufficiently dilated by the impel'd Fluids. The former of these Misfortunes is called the too great Weakness, and the latter the too great Strength, of the Vessels. In Cases of too great Debility, the Vessels capable of being dilated by the smallest Force may, by an *Error Loci*, admit the grosser Fluids; and, since they easily yield, their Extremities may, in this Case, be so dilated, as to convey those grosser Fluids, which have enter'd them, to the Veins. Hence, in such a Case, the Obstruction is easily removed. Besides, in these Cases, the Motion of the Humours is always languid; and, in consequence of the Weakness of the Vessels, the Fluids are never thick and compacted. Hence 'tis sufficiently obvious, that, in Constitutions of this kind, Inflammations not only rarely happen, but are, also, easily cured when they are produced. But, when the Vessels are too strong, the Blood is always thick and compact, and its most liquid Parts dissipated. Hence its grosser Parts become united, and the Inflammation produced is, with Difficulty, resolved; partly by reason of the greater Incapacity of the condensed Fluid to pass thro' the Vessels, and partly by reason of the strong Contraction of the obstructed Vessels, by which they not only closely confine the obstructing Molecules, but, also, resist their own Dilatation. It is often observ'd in Practice, that in Women, and young Persons, acute and inflammatory Disorders are frequently cur'd by a benign Resolution, which rarely happens in Adults, or those accustomed to hard Labour. *Hippocrates*, in his *Coacae Praenotiones*, makes the same Observation in the following Words: "Persons of dense Habits of Body, and those accustomed to Exercise, are sooner cut off by pleuritic and peripneumonic Disorders, than those not habituated to Exercise."

When there is a sufficient Quantity of diluting Lymph. When, in the Beginning of acute Diseases, the most liquid Parts of the Juices are dissipated by Sweat, Stool, or any other Evacuation, an unlucky Termination of the Disorder is always to be dreaded; for the grossest Molecules of the Blood are hinder'd from mutual Contact, and Concretion, by the Interposition of the finer and more subtle Parts of the Fluids.

Blood flowing from the Vein of a sound Person appears an homogeneous Fluid, but, after remaining for some time in a State of Rest, separates into two distinct Parts; for the red Molecules, being united, are concentered, whilst the fluid Serum is secreted from them. But if Blood, immediately after 'tis taken from the Vein, is agitated with a Spatula or Stick, till it becomes cold, this Separation of the Serum from the red Part of the Blood is prevented, and the whole Mass remains fluid. Hence appears the Necessity of a fine diluting Liquid, in order

to prevent the Concretion of the Blood. For this Reason *Hippocrates*, in the Beginning of acute Diseases, always condemn'd an Excretion of the more fluid Parts of the Blood by Sweat, Stool, or any other Evacuation. Thus, in his *Prorrhet. Lib. 1. Num. 57.* he tells us, "that profuse Sweats are bad in acute Fevers." And in his *Coacta Prænotiones, Num. 30.* he informs us, "that, in burning Fevers, immoderate Fluxes prove mortal." *Sydenham*, also, who accurately observ'd the various Efforts of Nature in curing Diseases, informs us, that in the Beginning of the Small-pox all the Symptoms are increased by profuse Sweats.

When all, or at least most, of the Conditions above enumerated happen, then a Resolution, or a Change of the inflammatory Disorder into a State of perfect Health, is to be expected without an Expulsion of the Matter of the Disease, or a Destruction of the Vessels; since the Matter is only render'd capable of Circulation, and the obstructed Vessels open'd, and render'd pervious. But, if any of these Conditions requisite for a Resolution should be wanting, we are to endeavour to supply this Defect by Art. By a mild Regimen, and softening Medicines, a due Degree of Lenity is procured to the Humours. By Venesection, Rest, and the Influence of a pretty cool Air, the Velocity of the Circulation is check'd. By Fomentations applied to the Part affected, the Vessels are so relax'd, that they become capable of yielding more easily. By thin and aqueous Drink, the diluting Vehicle of the Blood is supplied. In the mean time all those things are to be avoided, by which the most fluid Parts of the Humours are eliminated, and carried out of the Body. But all these shall be afterwards considered under the Cure of an Inflammation.

If the circulating Humours are mild, their Motion accelerated, the Obstruction great, incapable of a Resolution, and attended with a violent Train of Symptoms, the Vessels distended, and ruptur'd with Pain, Heat, Pulsation, and Tumor, discharge their contained Fluids, which are resolv'd, become gently putrid, and produce an Attrition on the tender Solids, which they dissolve, and mix with the Fluids into one homogeneous, white, thick, glutinous, and pinguious Humour, called Pus. This is Suppuration, the other Manner in which Inflammations terminate.

When the obstructing Molecules are so impacted in the Extremities of the converging Vessels, that there is no Access for a diluting Vehicle, by which being dissolv'd, they may penetrate into the Veins, whilst, in the mean time, the succeeding Fluid, by an accelerated Motion, continues more and more to protrude the obstructing Matter into narrower Parts of the Vessels, 'tis obvious, that, at last, the stagnating Fluid, being much press'd, will remain absolutely immovable in the obstructed Vessel, and become incapable of being forced from these narrow to wider Parts thereof. All this Part, therefore, of the inflamed Vessel will be totally deprived of the Influx of the vital Humours, and must consequently be separated from the other live and sound Parts. A careful Observation of Nature, in her Efforts to cure Diseases, has taught Physicians, that a Suppuration arising, produces a most perfect Separation of all that which is affected by the Inflammation, from the remaining sound and live Parts. Hence it is obvious, that a Suppuration is not highly dangerous, except in those Parts of the Body, the Soundness of which is absolutely necessary to Life and Health, such as the Brain, for Instance, or in Cases where Pus, already form'd, cannot be eliminated without Danger, as in Inflammations of the intercostal Parts: But how, by a Suppuration, all those Parts, rendered totally unfit for the vital Motion of the Fluids, are separated, is beautifully illustrated by the various Phenomena which happen in every Wound, inflicted in a sound Body, from the very Beginning to the perfect Cure: For, first, the Blood is discharged from the Vessels divided by the wounding Cause; then, their Orifices being contracted, a redish thin Ichor is eliminated. Then the Surface of the Wound becomes almost dry, and a true Inflammation is produced by the vital Motion of the Humours acting upon the Extremities of the obstructed Vessels; as is obvious from the Pain, the Redness, the Heat, the Swelling, the gentle Fever, and the Thirst. Afterwards the impervious Extremities of the Vessels are separated, together with that Part of the stagnating Liquor which is impacted in the Extremities of these Vessels. Then, in the Wound, appears a tenacious, white, and pinguious Liquor, called Pus. When this is cautiously wiped off, the whole Surface of the Wound appears equally moist; a manifest Sign, that the Orifices of the Vessels, before obstructed, are open'd, the contracted and impervious Extremities of the Vessels being separated. A Suppuration, therefore, is the salutary Effort of Nature, by which all those Parts, become unfit for the vital Motion of the Humours, are separated from the other live and sound Parts. Hence *Hippocrates* justly observ'd, that Wounds made with sharp Instruments might be cured without a Suppuration; whereas confused and lacerated Flesh must become putrid, and be converted into true Pus. But though in treating of a Suppuration we use the Word Putrefaction, yet we do not mean that Kind of Putrefaction, which

happens in a Carcase, where there is no Life; but a particular Change and Depravation of the Humours, brought about by the remaining Principle of Life. *Galen*, in his *Treatise de Febribus, Lib. 1. Cap. 7.* beautifully distinguishes between these two Species of Putrefaction; for he commended a white, smooth, and equal Sediment of the Urine, as the best Sign of the Resolution and Evacuation of the Matter of the Disease. This Change he calls Putrefaction, in the following Words: "But the Putrefaction of the Humours, which happens in Abscesses, is similar to that which happens in Inflammations, Abscesses, and other Tubercles." He informs us, that there are two Kinds of this Putrefaction. "One, says he, happens by the superior Power and Energy of Nature; and the other in consequence of her being overcome and foil'd. When Nature is victorious, Pus is form'd, as in Inflammations, and all Tumors of the tuberculous Kind. But, in the Humours of the Arteries and Veins, that which subsides in the Urine is analogous to Pus. But this Putrefaction is not simply Putrefaction, but, in some measure, partakes of the Nature of Concoction; for, so long as the Faculty of Concoction remains in the Vessels, the putrescent Humour is thus chang'd." Hence it appears, that the Formation of Pus is widely different from a spontaneous Degeneration of the Humours into Putrefaction.

The Transition of an Inflammation incapable of a Resolution, into a Suppuration, seems to be in this manner: The succeeding Fluid, the Celerity of whose Motion is increas'd by the concomitant Fever, is, by each Pulsation of the Heart, forced upon the obstructed Part. Hence, by this continued Pulsation, the distended Sides of that Part of the Vessel between the Heart, and the Part obstructed, begin gradually to be lacerated, and the Cohesion of the obstructed Extremity with the rest of the Vessel is destroy'd. Whilst this happens, the Humours are discharged from the open Vessels. By the Heat of the Parts these are dissolved, and begin to become, as it were, putrid. The stagnant Fluid, lodged in the separated Extremities of the Vessels, also, begins to be dissolved by the same Causes. The highly tender solid Parts, before containing this stagnating Liquor, suffer, also, an Attrition, are divided, and, being changed by their Stagnation, and the Heat of the Parts, are converted, together with the discharged Fluids, into an homogeneous Liquor, called Pus. It may, perhaps, appear surprising, that the solid Sides of the Vessels should be so dissolv'd, that a Mixture of them with the discharg'd Humours should appear an homogeneous Fluid: But the Truth of this will be sufficiently obvious, if we consider the almost incredible Smallness of these Vessels; for from the Experiments of Mr. *Leeuwenhoeck*, and others, mention'd in the second Volume of the Medical Essays, 'tis obvious, that, according to an accurate Calculation, almost fifty Millions of red Globules of Blood are only equal in Weight to one Grain. But the smallest Arteries, destin'd for the Conveyance of the Blood, transmit only one such Globule. Hence it appears how small and tender these Vessels must necessarily be. But the smallest of the Arteries destin'd for the Conveyance of the Blood are the largest among the minute Vessels. We have before proved, that an Inflammation of the sanguineous Kind may, also, happen in the Vessels destin'd for the Serum, and the small lymphatic Arteries. 'Tis, therefore, no Wonder, that the solid Stamina of such Vessels should, by Attrition, be so mixed with the Fluids, as totally to disappear. In phthisical Patients the whole Substance of the Lungs is sometimes so consum'd and evacuated by way of Spirit, that upon viewing the Patient's Body, after Death, Physicians are often surpris'd to find Life so long protracted, whilst so small a Portion of so noble an Organ was left.

But this Humour, consisting of the discharged Fluids, and the tender Solids, as it were, triturated and mix'd together, is called Pus; the Properties of which, when the Maturation is perfect, and the Concoction of the inflam'd Fluids duly made, are here enumerated; for, in this Case, the Pus always appears white, of the Consistence of the Cream of Milk, pinguious to the Touch, every-where equable, and containing nothing heterogeneous. But the Pus, which recedes from these Conditions, is justly to be condemn'd. *Hippocrates*, in his *Prognostics, 42.* takes notice of all these Circumstances, in the following Words: "That Pus is the best, which is white, equal, smooth, and not at all fetid: That, on the contrary, is worst, which most palpably recedes from these Qualities." *Celsus*, also, in the twenty-sixth Chapter of his fifth Book, when treating of the various Matters discharged from Wounds and Ulcers, that is, Sanies, Blood, and Ichor, uses the following Words: "Among all these Pus is the best: But this, also, is of the worst Kind, when it is discharg'd in large Quantities, or is thin and diluted, especially at first; as, also, when its Colour resembles Serum; or when it is pale, livid, seculent, or fetid; unless the Place itself excites the Smell. On the contrary, it is the better, the smaller its Quantity, the thicker, and the whiter it is; as, also, when it is smooth, without any Smell, and equable." A little after he beautifully observes, that Inflammations are terminated by the Formation of Pus; for he goes on in these Words: "But the Pus ought to be proportion'd both to the Bulk of the Wound,

" and

“ and the Time; for a larger Quantity may be naturally so discharged from a large Wound; and in Cases where Inflammations are not as yet terminated.” But, when the inflammatory Matter, to be concocted into Pus, is of an obstinate and rebellious Kind, or when the concocting Powers are weak, or when both these Misfortunes concur, then a Pus, with the above enumerated Conditions, is not form'd; but another Liquor, degenerating more or less from them, as *Galen*, in *Comment. 1. in Prognost. Hippocr.* beautifully observes, when explaining this Passage of *Hippocrates*; for, after he has told us, that, in a Phlegmon, the Blood discharged into the Interstices adjacent to the Vessels, that is, into the Tunica Cellulosa, could not be restored to its former Nature, but must be changed, and become putrid, just like all other Substances, which become excessively warm in an improper Place, he subjoins the following Words: “ If, therefore, *says he*, the innate Heat recedes much from its due Temperature, the Blood becomes putrid, as in a Carcase. But so long as this innate Heat retains its proper Energy, a kind of mixed Change is produced in the Blood; partly by a preternatural, and partly by a natural Cause; of which, as the former putrefies, so the latter concocts: Whichever of these is most prevalent, their proper Symptoms necessarily ensue, both in the Colour, the Smell, and the Consistence of the Matter.”

The Formation of Pus, therefore, depends on the remaining Principle of Life: For this Reason *Hippocrates* justly reckon'd it among the worst Signs, when an Ulcer, appearing before or during a Disease, discharged no more Pus, but became dry; for in his *Prognost. 22.* he affirms, that the Patient, whose Fate this is, will die.

But that the inflamed Part tends to a Suppuration, may be known from the following Conditions.

If the circulating Humours are mild: For, if there is a considerable Acrimony of the Humours, this, by the Stagnation and great Heat of the Part, will be increased: Hence an Erosion and Destruction of the Vessels will happen; but not that mild and gentle Separation of the Extremities of the obstructed Vessels, which ought to be in a legitimate Suppuration.

If the Motion of the Humours is very violent. In the Resolution of the Inflammation, the Mildness of the Humours, and their regular Motion, are requisite: But, where a Suppuration is to ensue, there is always a proportionably greater Velocity of the Circulation: Hence a Suppuration is a kind of Medium between a benign Resolution, and a Gangrene. In a Resolution, without any farther Injury done to the Vessels, or an Evacuation of the obstructing Humours, the concentered Fluids are reduced to their former Fluidity, and those which were stagnant put in Motion. But, in a Gangrene, a true Mortification of the Part affected happens; and the Whole of this mortified Part must afterwards be separated from the adjacent live Vessels: But, in a Suppuration, the Extremities of the obstructed Vessels are torn asunder, and the extravasated Fluids to be converted into Pus, with the tender Solids, must be eliminated. In this it differs from a Resolution, and from a Gangrene; because by a Suppuration the Whole of the Part affected is not destroy'd. For this Reason the increased Velocity of the Humours, which accompanies an Inflammation, must be very moderate, before a Resolution can be expected. On the contrary, if a violent Fever is present, a Gangrene will soon ensue: But, in a Suppuration, the Motion of the Humours is neither so moderate as in a Resolution, nor so brisk and swift as it generally is in a Gangrene: Hence, when there are no Hopes of a Resolution, it may prove equally dangerous to lessen the Fever, as it is imprudent to excite it; as will afterwards appear.

When the Obstruction is great. When the Obstruction is said to be small, or great, 'as, also, what the Signs of a Resolution are, we have already specified: But it is principally known, that an Inflammation tends to a Suppuration, if the Tumor, Heat, Pain, Redness, and other Symptoms, already enumerated, are increased; not with the greatest Velocity, for then a Gangrene would ensue; but by a kind of continued and uninterrupted Increase. It may seem difficult accurately to ascertain the precise Boundary, where the Possibility of a Resolution ceases, and the Beginning of a Suppuration happens: This however, is certain, that the Pain, Pulsation, Fever, and Heat, are manifestly increased at the time the inflamed Part is suppurating. But, when the Pus is formed, all these are again lessen'd, as *Hippocrates*, in the forty-seventh Aphorism of his second Section, justly observes, in these Words: “ About the time Pus is forming, Pains and Fevers rather happen, than when it is already form'd.” Nor is this surprising, since the distended Vessels, ready to burst, are capable of exciting the most intense Pain; but, when they are ruptured, the Pain produced by this means ceases.

If the Humours are acrid, and their Motion violent, the Obstruction great, the Vessels rigid, and all the Symptoms violent; then the Vessels are suddenly ruptur'd, the Fluids become putrid, and the Ichor discharge'd is collected under the Skin, like the Washings of Flesh, or a yellow Sanies: The Colour of the Part becomes cineritious, pale, brown, and at last black.

The Redness, Pain, Heat, Pulsation, and Tumor, cease in the Part affected, but appear in those adjacent: The Part affected becomes mortified: And this is called a Gangrene, the third Manner in which Inflammations terminate.

We now come to treat of the third Manner in which Inflammations terminate, which is a Gangrene: When by any Cause whatever, in a soft Part of the Body, the Influx of the vital Humours through the Arteries, and their Return through the Veins, are destroy'd, then the Mortification of such a Part happens; which, from its Beginning as it increases, is called a Gangrene. This Termination therefore of an Inflammation differs from a Suppuration, since, in the former, all Motion of the Humours ceases in the Part affected, in consequence of the sudden Rupture of the Vessels; whereas, in a Suppuration, the obstructed Extremities of the Vessels are gradually separated by the Motion of the succeeding vital Juices. An Inflammation principally tends to a Gangrene, when the following Circumstances happen.

When the Humours are acrid. All highly acrid Substances, externally applied to the Body, produce a Gangrene; nor is it matter of any Moment, whether these acrid Substances are of an acid, an alkaline, or any other Nature: Thus Oil of Vitriol, the potential Caustery used by Surgeons, and prepar'd of an acrid alkaline Salt, boiled with Quick-lime, acrid empyreumatic Oils, or the expressed Oils of Guaiacum, and volatile alkaline Salts, when applied to the Skin, produce true gangrenous Eschars. The same will happen, if the Mass of Blood is contaminated with acrid Substances. It is true, such highly acrid Things cannot easily enter the Blood; yet, in some Diseases, there happen such surprising Depravations of the Humours, that, acquiring the highest Degree of Acrimony, they suddenly destroy all the Parts. In a malignant putrid Scurvy, the Gums have an intolerable Stench, and are affected with a true Gangrene; then malignant Ulcers, which soon become gangrenous, appear in various Parts of the Body, and especially in the Legs. The like Disorders are observ'd to be produced by the black Bile, when redundant, and put into Commotions: Hence it is obvious, that, if an inflammatory tenacious State of the Blood is at the same time accompanied with a considerable Acrimony, the Vessels must soon be destroy'd, and a Gangrene produc'd.

When the Motion of the Humours is violent. A moderate Motion of the Humours favours the Resolution of an Inflammation; a Motion somewhat brisker promotes a Suppuration; but an highly violent Motion acts with such Force on the obstructed Extremities of the highly minute Arteries, that all the Parts are suddenly ruptured, and not gradually separated, as in a Suppuration. The brisk Motion of the Humours through the whole Body is known by the increased Velocity of the Pulse, and a preternaturally quick Respiration: The intense Pain, and violent Heat, in the inflam'd Part indicate the same. If at the same time the Velocity of the Humours is accompanied with an Acrimony, it is sufficiently obvious, that the tender Vessels must be very quickly destroy'd, since acrid Fluids are both with a greater Impetus, and more frequently, applied to them within a given Time: Besides, it is certain, that, by an increased Celerity alone of the Circulation, the Salts and Oils of the Blood are render'd more acrid; and that thus fresh Stimuli are produced, which increase that Velocity of the Circulation which first gave Birth to them. From all these Circumstances it is sufficiently obvious, that the inflam'd Part is in imminent Danger, when there is a violent Fever.

When the Vessels are rigid. It is shewn under the Article FIBRA, that by an increased Rigidity of the Vessels the Blood is highly condensed, and its most liquid Part dissipated, by which means it is rendered more prone to Concretion; and, as we have already observed, the due Mobility of the Canals, and the diluting Vehicle of the Blood, are justly reckoned among those things from which the Resolution of an Inflammation is to be expected. If the contrary Circumstances should happen, a proportionably worse Event will always ensue. And since, in this Case, the Humours are moved through the Vessels with great Velocity, the whole Impetus will act upon the obstructed Extremities of the Vessels, whereas otherwise a great Part of it is employed in dilating the Sides of the flexible Vessels. Thus the Extremities of the Vessels, together with the concentered Fluid, with which they are loaded, will be suddenly torn asunder by this violent Force, and all the Circumstances to be afterwards mentioned will happen. Hence the Reason is obvious, why inflammatory Disorders are generally so fatal to Persons worn out by hard Labour.

When all the Symptoms are violent. If the Tumor of the inflamed Part very suddenly increases, if the Redness is very deep, and tending to a purple Colour, the Heat burning, the Pain intense, and continually increasing, the Pulse excessively quick, and the Respiration difficult, a Gangrene will soon be brought on.

In this Case the Vessels are suddenly ruptured. If we consider, that an acrid Fluid, moved with a violent Motion, acts upon the Extremities of the Vessels so loaded with a stagnating Matter,

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ter, that nothing can pass through them, it easily appears, that a sudden Rupture of the Vessels is to be expected, especially if their too great Rigidity prevents their being easily distended without a Rupture. But from the ruptured Vessels the Fluids are discharged, and, by a spontaneous Principle of Change, are very soon corrupted; since an intense Heat, the perpetual Concomitant of a violent Inflammation, greatly favours a Putrefaction. Whilst all these Circumstances happen in the inflamed Part, some sensible Changes are observed, which manifestly inform us, that such a Disorder is either already present, or will soon be so. But all these Phenomena are perfectly similar to those produced by Fire, when applied to any Part of the Body, as we have already observed: for then the Epidermis begins to be separated from the subjacent Skin, and, by the discharged Humours, raised into Blisters, generally full of a redish Ichor; or, in a worse State of the Disorder, a thin yellow Sanies is contained in these Blisters. This shining red Colour is changed into a cineritious, pale, brown, and, at last, a black Colour; and, according as the Colour recedes from cineritious, or pale, and approaches to that of black, the greater or smaller Progress of the Disorder is to be estimated. Then almost all the Symptoms of the Inflammation are mitigated, and sometimes appear to be totally removed. Nor is this to be wondered at, since they draw their Origin from the increased Celerity of the vital Motion of the Humours in the Part affected. Hence the Redness disappears, since, when the Influx of the Humours ceases, the Blood is no longer carried through the Vessels of the Part thus affected. And when, for the same Reason, the nervous Fibres are no longer distended, the Pain is, of course, removed. As the Heat and Pulsation suppose a violent Attrition of the impelled Fluid on the Sides of the Vessels, they, in like manner, cease, when a Gangrene succeeds an Inflammation. This sudden Remission of the Pain, and other Symptoms, in acute and inflammatory Disorders, without previous good Signs, is, therefore, justly accounted to fatal a Symptom; for, when in an external Part of the Body a Gangrene happens after a violent Inflammation, the Presence of such a Disorder may be known from the above enumerated Signs. But, if the internal Parts of the Body labour under the like Disorder, the principal Sign is to be taken from the sudden Cessation of the Pain. Thus in a violent Pleurisy, and highly painful Inflammations of the Intestines, the intense Pain frequently ceases suddenly; and, whilst the miserable Patients fondly believe, that the Disorder is happily subdued, an End is soon after put to their Lives. These are the fallacious Intervals of Respite, which, in violent Disorders, so often impose upon judicious Physicians; whilst those not much conversant in Practice often both hope and predict a salutary Termination of the Disorder, which, in such Circumstances, never fails to prove soon mortal.

When, therefore, the Vessels are destroyed, the Influx and Efflux of the Humours in the Part affected is totally abolished, that is, a Mortification is produced; and then all the subsequent Disorders arise from the spontaneous Corruption of the Part already mortified: For, if we consider those Changes which happen especially in a warm and moist Air, to the Flesh of newly kill'd Animals, it is obvious, that they are almost similar to those which happen in gangrenous Parts; for the red and lively Colour of recent Flesh begins to be gradually destroyed; a pale cineritious Colour succeeds, which, by degrees, becomes more and more brown; at last, such putrefied Flesh becomes almost black, and is dissolved into a kind of putrid Gore, though before it was sufficiently firm. But all these Phenomena happen sooner in a gangrenous Part, because the Heat of the adjacent live Parts augments the Putrefaction of that which is mortified.

Though the Parts adjacent to such a mortified Part are as yet pervious to the vital Humours, yet in the Boundary between the mortified and live Parts there must necessarily be an Obstacle put to the Humours conveyed thither, since they cannot possibly penetrate into the mortified Parts. Hence in this Boundary a kind of new Inflammation is produced, after which a Suppuration happening, the mortified and gangrenous Part is separated from the adjacent live Parts, and the Gangrene spreads, the vital Motion of the Humours being suffocated in the contiguous Parts. This Phenomenon has sometimes imposed upon unskillful Practitioners, whilst they believed, that a Gangrene was not yet present, because Pain was perceived in the Part affected; though, properly speaking, there is no Power of Sensation in the gangrenous Part, since the Pain arises from the subjacent and circumambient live and inflamed Parts. But it is always reckoned a good Sign, when, in the whole Circumference of the Part already gangrenous, Redness, Pain, Heat, and Tension, are perceived, provided these Symptoms are not so violent as to lay a Foundation for dreading, lest this Inflammation, also, should degenerate into a Gangrene; but in this Case we know, that the remaining Life in the other Parts of the Body attempts the Separation of the gangrenous and corrupted, from the live and adjacent Parts.

When an external Compression happens to a Part thus affected, or when an intense Heat dissipates the Fluids, the mortified Part becomes indurated like a Piece of dried Lea-

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ther, and suffocates and corrupts the Parts which are inferior to it.

In a Part already gangrenous there is no Motion of the Humours through the Vessels, but a perfect Rest and Stagnation: Hence Changes will happen, similar to these, which, by the same Causes, are produced in Carcases. The Heat of the subjacent and circumambient live Parts, if, at the same time, there is any Moisture, will convert the whole mortified Part into a putrid Gore. But if, by an external Compression, or an intense Heat, the most fluid Parts of the Humours are dissipated, then the mortified Part is dried, indurated, and perfectly resembles a Piece of black Leather; and is often so tough, that it can scarcely be divided by a Razor. But this Phenomenon is principally observed in the external Parts, covered with Skin; for in other Parts the gangrenous Portions are rather colligated into a kind of Gore. Thus in a Man formerly in good Health, who died of an incarcerated Hernia, *Van Swieten* informs us, that he saw the Intestines converted into a putrid kind of Poultrice during the two Days the Disorder lasted. But when, in acute Diseases, a Gangrene is produced about the Os Sacrum, and Os Coccygis, by lying in Bed, highly black and dry Spots appear in the Part affected. How soon, by external Compression alone, a Gangrene is not only produc'd, but, also, the Skin rendered black and indurated like a Piece of Leather, even in the soundest Person, may be learned from numberless Cases, which daily occur in Practice. But when such an hard and coriaceous Covering firmly adheres to the subjacent Parts, these will, of course, become inflamed, so that being rendered tumid, if this Covering cannot be raised and separated from the live Parts, to which it adheres, these will in like manner be compressed, and the Disorder will penetrate deeper.

Things actually, or potentially, cold, Astringents, coagulating Substances, Repellents, pinguious and acrid Substances, those of an emplastie Nature, Narcotics, strong Ligatures, and external Compression, soon promote this Change of an Inflammation into a Gangrene.

In this Paragraph are enumerated such things as we know from Experience, when applied to an inflamed Part, soon change the Inflammation into a Gangrene.

As for the Things actually or potentially cold; among the Things which dispose an Inflammation to degenerate into a Gangrene, we may justly reckon a great Obstruction, and the Rigidity of the Vessels. But the Effects of Cold are a greater Contraction and Strength of the Solids, and an increased Stagnation of the Fluids. The highest Cold, therefore, by constringing the Solids, and coagulating the Humours, totally prevents the Circulation of the Humours. Hence a sudden Mortification of any Part is produced by intense Cold. But, when the Principle of Life is able to surmount these Obstacles, in any Part of the Body pinched with Cold, then a violent Heat is produced by the Attrition of the condensed Fluids circulating thro' the contracted Vessels. Those who rub their Hands with Snow, find this to be experimentally true; for, after the uneasy Sensation of Cold, a pretty intense Heat is perceived. Hence 'tis obvious, that cold Substances, applied to inflam'd Parts, prove injurious; either as they entirely suffocate the Motion of the Fluids, or as they afterwards increase the Heat, which is already too great. Sometimes, however, cold Substances applied may prove beneficial; when, for Instance, in consequence of an *Error Loci*, the grosser Humours, having enter'd the smaller Vessels, would be repel'd into the larger Ramifications, in consequence of the Contraction of the Vessels by Cold, especially if the Disorder should prevail in the finer Fluids; for the red Part of the Blood is immediately coagulated in cold Water, but not the Serum, and finer Part of the Lymph. But 'tis sufficiently obvious, that no Advantage is to be expected from the Application of cold Substances, unless the Disorder is at once recent and mild; for, if the obstructing inflammatory Matter should be immovably pent up, and impacted in the narrowest Parts of the Vessels, the Disorder will be rather increased by them. These Sentiments exactly agree with the Doctrine of the Antients; for, after *Hippocrates*, in the 17th and 20th *Aphorisms* of his fifth Section, has inform'd us, that Cold, among other Misfortunes, produces *Blacknesses* [*μελασμοὶς*], he, in the 23d *Aphorism* of the same Section, when recounting the Advantages of Cold, affirms, that it is useful in Cases where "Inflammations and Heats, produced by recent Discharges of Blood, begin to appear red, and, as it were, bloody; for, says he, it induces a Blackness on inveterate Inflammations, helps an Erysipelas when not ulcerated, but does Harm to that which is of the ulcerated Kind." And tho' *Galen*, in his *Method. Medendi. Lib. 13. Cap. 6.* recommends the Use of cold Substances in a Phlegmon, he yet subjoins very proper Cautions in the following Words: "In beginning Phlegmons we are rather to use cold and astringent, than discutient Substances, especially when the congested Matter is not thick; for, when there is a violent Incuneration or Impaction [*επιρροή*] in the inflamed Part, we are no longer

“ to use Repellents, but Discutients.” *Galen* could not have spoken more justly upon this Subject, if, from a Knowledge of the Circulation of the Blood, he had been acquainted with the general Nature of an Inflammation. And in his *Method. Medend. Lib. 14. Cap. 3.* when treating of the Cure of an Erysipelas, he tells us, that it requires a greater Degree of Refrigeration than a Phlegmon, and then subjoins the following Words: “ But let Refrigeration be no longer used, than a Change of Colour happens in the Part; for, upon such a Change, a genuine Erysipelas ceases; but, by too much refrigerating an Erysipelas, which is not genuine, but, in some measure, of the phlegmonoid Kind, the Skin is rendered livid; and if we do not then give over the Refrigeration, it becomes black, especially in old Persons; so that some Parts, thus refrigerated, are not to be perfectly cured by the Use of Discutients, but continue with a kind of scirrhus Tumor upon them.” Hence ’tis sufficiently obvious, how dangerous the Use of cold Substances is in the Cure of Inflammations; since, by their means, they so easily degenerate into worse Disorders, unless, when used in the Beginning, or in Cases where the Misfortune arises, not from the Entrance of the red Blood, but of the finer Humours, into Vessels not naturally destin’d for their Conveyance; as, for Instance, in an Erysipelas, an hot Oedema, and other Disorders of a like Nature.

Things potentially cold are those, which, when applied to a sound Body, destroy or lessen the Heat, tho’ they themselves are actually hot, or, at least, not much colder than the Part of the Body to which they are applied. They are, therefore, such Substances as either lessen, or entirely remove, the Causes of Heat in the Part: But Heat arises from the Motion of the Humours thro’ the Vessels. When the latter is diminished, the former decreases; and the Heat is increased in proportion as the Motion is augmented. ’Tis therefore obvious, that potentially cold Things are such as either destroy or lessen the Velocity and Strength of the Circulation. Thus, for Instance, warm Water, applied to the Part affected, may by relaxing the Vessels, and diluting the obstructing Molecules, remove the Heat of the inflamed Part. Hence some Things are said to be potentially cold, tho’ they are, at the same time, actually hot. But ’tis sufficiently obvious, that these, and other Things of a like Nature, rarely prove prejudicial in Inflammations, as we shall afterwards shew; for they do not destroy the Motion of the Humours thro’ the Vessels, but, removing the Obstacles, restore a free and equable Circulation. But those Things would prove highly injurious, which, by suffocating the Life of the Part, should induce a Coldness, as is reported concerning some Poisons. Thus the divine *Socrates*, after having drank the poison’d Draught, supposed to consist of Hemlock-juice, perceived his Legs becoming cold; and, when this Coldness ascended above his Pubes, he calmly expir’d.

As for astringent and coagulating Circumstances; by these the Cavities of the Vessels are diminish’d, and the Fluids render’d incapable of Circulation. Such Substances, therefore, contribute to increase the Causes of the Obstruction, and, consequently, destroy the free Motion of the Humours thro’ the Vessel. But, when this Motion is entirely destroyed in the Part, a Gangrene is present.

As for Repellents; the inflamed Part, for the Reasons already assign’d, becomes tumid, and that frequently in a very high Degree. Hence the antient Physicians concluded, that a certain Matter was here congested, which was not lodged in the Part before, but came from some other Quarter. But, as they frequently saw this Accumulation very soon form’d, they imagin’d that it was produc’d by Fluxion. For this Reason a Part of their Cure consisted in repelling what had flow’d into the Part, especially in the Beginning of the Disorder, as we have before shewn from *Galen*. That such a Repulsion of the Blood from the Extremities of the Arteries to their Bases is possible, we know from certain and undeniable Observation; for, when the soundest Man is suddenly frighted, the Paleness of the Face and Lips sufficiently informs us, that the Blood has retir’d towards the Heart, and larger Vessels. Hence a Palpitation of the Heart, and a kind of Uneasiness, immediately succeed this Paleness. The same is, also, sufficiently obvious in Deliquiums. But, by this Repulsion, the Molecules of the Blood, which, thro’ an *Error Locæ*, had enter’d smaller Vessels, may be again forced back into such as are larger; and thus the Obstruction would be removed. But, how far Things of this Nature may prove beneficial, we have already consider’d, when treating of the Application of cold Substances to inflam’d Parts. But as all Things externally applied, in order to promote this Repulsion, act only by increasing the Contraction of the Vessels, ’tis sufficiently obvious, that their Use is dangerous, except in the Beginning of an Inflammation arising from an *Error Locæ*; and that the Disorder is increased by them, unless they prove beneficial on their first Application.

As for phlegmons and acrid Substances, or such as are of an emplastic Nature; we have already said something concerning these: For, since they are subject to produce an Inflammation, they will, of course, augment one already produced by other Causes,

especially if the emplastic Substances adhere strongly to the Part affected; for, in this Case, they render it still more imperspirable, and the acrid Substance mixed with them will adhere to it for a long time.

As for Narcotics; these, from their Nature, may, perhaps, appear not so much to be condemn’d; especially if they are judiciously used. But as all the Medicines of this Class blunt the Sense of Pain whilst its Cause remains, by this means an Inflammation is often increased every Moment; and, the Vessels being destroyed without any Sense of Pain, a Gangrene ensues. But the intense Pain, the Heat, the Pulsation, and other Symptoms, would have sufficiently admonish’d both the Patient, and those who have the Charge of him, that the worst of Misfortunes were to be dreaded, if the Sense of Pain had not been allay’d by these Narcotics. Hence the most efficacious Remedies are neglected, which might have prevented the Transition of this Inflammation into a Gangrene.

As for tight Ligatures; how a Gangrene may be produced by this means, we have already specified; but ’tis sufficiently obvious, that this Disorder is much sooner to be expected, when an inflamed Part is violently constricted by a tight Ligature.

As for external Compressum; we have already consider’d its Effects.

Then a Continuation of the Use of the above-mentioned Things augment the Disorder into a Sphacelus.

We have already shewn, that a true Phlegmon has its Seat most frequently in the Tunica Cellulosa, and that it is sometimes distended to an enormous Bulk. Thus, when an Inflammation arises in the Back of the Hand, where this Coat or Membrane is most tender, a Tumor sometimes happens two Inches thick, and frequently more. But, when a Gangrene succeeds an Inflammation in this Part, this whole corrupted Mass must afterwards be separated; and, in such a Case, a Knife may be thrust pretty deep, without any Sense of Pain, from which Circumstance all the subjacent Parts might be thought mortified. But it often happens, that the subjacent Tendons and Muscles remain alive, in which Case the Disorder is not as yet a Sphacelus; for a Sphacelus is only said to be present, when all the Parts, to the very Bone, are mortified. But when the Membrana Adiposa, highly distended, already corrupted with a Gangrene, and at the same time pent up within a tough Skin, presses upon all the subjacent Parts, the vital Circulation of the Humours may be, also, totally suffocated in them; and then the Gangrene degenerates into a Sphacelus, that is, a perfect Morification of the Part. All the Things, therefore, enumerated in the preceding Paragraph, as capable of converting an Inflammation into a Gangrene, may so increase a form’d Gangrene, as to convert it into a Sphacelus.

If the Part inflamed is glandular, the internal or external Heat great, the impacted Matter immovable and thick, the Emunctories of the Glands obstructed, and their Follicles and Sides distended, an hard Tumor, free from Pain, is form’d in the Glands, which is called a *Scirrhus*, the fourth Manner in which an Inflammation terminates.

This is the last Manner in which an Inflammation terminates, when, for Instance, it is neither resolved, nor that which is render’d unfit for the carrying on the vital Motion of the Humours, separated from the sound adjacent Parts. This morbid Part, therefore, remains so united to the sound Parts, that it, at last, acquires such an obstinate Disposition, as to be incapable of a Separation from the sound Parts by all the future Efforts of Nature, or the Efficacy of any Medicine hitherto known; but must be removed by the Knife, or the Cautey. But in those Parts of the Body, through which the Blood is continually convey’d, with a rapid Motion, ’tis sufficiently obvious, that the Vessels, infarcted with a stagnating Matter, cannot remain long unchang’d: For, by this continual Pulsation, all that which resists the free Motion of the Humours through the Vessels, will be either separated by a mild and gentle Suppuration, or soon corrupted by a Gangrene, or a Sphacelus. But when such is the Condition of the Part affected, that the Impetus of the arterial Blood can act but little, or not at all, upon it; ’tis then to be apprehended, that the impacted Matter, when its more liquid Part is dissipated, may remain there, and form that Species of hard Tumor, which is without Pain, and is called a *Scirrhus*. But this Termination of an Inflammation is most frequently observ’d in the glandular Parts; for, the Emunctories of these Glands being obstructed, none of the secreted Fluids can be discharged through their Fabric. These Fluids, being impissated by their Continuance and Stagnation, will fill and distend their Cavities, or their intricate valvular Fabric. And, as the Imperus of the circulating Fluids cannot act directly on this impacted Matter, it will remain, be deprived of its most liquid Part, and form a *Scirrhus*. Of this we have a palpable Instance in Inflammations of the Breast; for the Milk secreted from the Blood convey’d through the mammary Arteries, remaining in the Ducts, which prepare the Milk, begins to be coagulated, a thin Serum drops through the Tubes of the Nipple. The Remainder is im-

spiffated there, as it were, without the Sphere of the Circulation; and, after the Inflammation is allay'd, often leaves a hard Tumor free from Pain, all the rest of the Patient's Life. For the same Reason a Scirrhus so frequently succeeds an Inflammation of the Testicles; for if we consider, that the highly small spermatic Artery arising from the Trunk of the Aorta, by Ramifications sent off by a true Anastomosis, communicates the red Blood to correspondent small Veins, and then, by innumerable small Ramifications, wreath'd up and separated from each other, constitutes the Substance of the Testicles, it will be sufficiently evident, that the Impetus of the arterial Blood on these Parts is scarcely any at all. Hence a Matter once impacted here often produces Tumors, which prove so obstinate against the Efficacy of the best Medicines. But an Inflammation in the glandular Parts is principally succeeded by a Scirrhus, when the following Circumstances appear.

When the internal and external Heat is great. Women in Child-bed frequently commit the Cure of inflam'd Breasts to their Nurses, and often to other doating old Women. And as they generally dread nothing more than a Suppuration, and the laying open of the suppurated Part by a Lancet, they endeavour by all possible means to prevent this Misfortune. But if by the Application of the softest Fomentations they endeavour to procure the Resolution of the Inflammation, their Conduct would not be in the least culpable. But, by a dangerous Error, they expose the inflam'd Breast to live Coals, or continually cherish it with dry and hot Linen Cloths, or they apply Spirit of Wine, almost boiling, to it. But this Procedure is often so far from being succeeded by a Suppuration, that the most liquid Parts of the Fluids being dissipated, and the Remainder by that means inspissated, an incurable Scirrhus is form'd; then the miserable Women, who were before so much afraid of the Prick of a Lancet, are often, afterwards, forced to undergo a cruel and sometimes a pretty dangerous Operation. The same Misfortune, also, frequently ensues, if a violent Fever accompanies the Inflammation of a glandular Part, for the same Reasons.

When the Matter impacted is immovable or thick. Since the Milk contains in it so large a Quantity of a thick caseous Coagulum, which by its Continuance and Stagnation is so easily separated from the serous Part with which it was diluted, Scirrhuses are, for this Reason, more frequently formed in the Breasts than in any other Parts. When the Forces of the Blood, deprived of its most fluid Parts, and constituting what the Antients called the Black Bile, or Melancholy, has, by its pitchy Tenacity, infected the Mass of Fluids, the slightest Obstructions, happening in glandular Parts, easily degenerate into Scirrhuses.

When the Emmunctories of the Glands are obstructed. All that which, by the Fabric of the Glands, is secreted from the Blood conveyed to the Arteries, ought to be discharged thro' their Emmunctories for proper Purposes. Now, if by any Cause the Discharge of the secreted Liquor is prevented, this Liquor will be accumulated, and distend the Follicle in which it is contain'd. But the most fluid Part of the secreted Humour being either reabsorb'd, or dissipated, the rest is by that means render'd thicker, and will remain stagnant there. But the Impetus of the circulating Humours may act upon the Vessels, which constitute the Sides of such an infarcted Follicle, but not at all on the Matter contained in its Cavity, as is sufficiently obvious. Hence this Matter will often remain incapable of a Resolution by any means but by Stagnation, and a Dissipation of the most liquid Parts. We certainly know, that the finest Humours in the human Body are capable of being surprisngly concreted. The Bile stagnating in the Gall bladder, when its Emmunctory is obstructed, is often concreted into small Stones. The most limpid Urine, by too long a Stay in the Body, lays a Foundation for the Stone; and 'tis certain from Experience, that such calculous Concretions have been found in the Ventricles of the Brain, and the Cavity of the Abdomen, which Places are only water'd, as it were, with a fine and subtle Dew, exhaling from the smallest Arteries. In a sound Person, when the Nostrils are perfectly clean, their internal Surface is wet with a sufficiently fine Lymph; but in the Space of a few Hours, the most fluid Part being dissipated, the remaining Part is concreted. More Instances might be produced; but these are sufficient to shew, that the finest Humours in the Body may lay a Foundation for the most terrible Concretions.

The Cause, the Part affected, the Largeness, the Deepness, the quick Increase, and Symptoms of the Inflammation, together with the Nature of the Patient, compar'd with the Signs and Effects, give the most infallible Prognostic.

Having already enumerated the Signs and various Terminations of an Inflammation, we now come to consider the Prognostic which determines what Disorders are to be dreaded, and what lucky Events expected. But that we may know whether an Inflammation will terminate either in a benign Resolution, a Suppuration, a Gangrene, or a Sphacelus, we must advert to the following Circumstances.

The Cause. Thus, for Instance, the Contagion of the Small-pox, in three Days time, so changes the Body of the soundest

Person, that the whole external Skin, and frequently the internal Surface of the Oesophagus and Stomach, are full of inflammatory Pustules. A Resolution, in this Case, is never to be expected, but always a Suppuration, or, in the worst Species of the Disorder, a Gangrene, succeeds. But by the Contagion of the Measles the external Skin is, indeed, inflamed, but a Suppuration never follows, since, upon a Desquamation, or Scaling off of the Epidermis, the Disorder is terminated. Authors who have treated of the Plague, inform us, that in various Parts of the Body there sometimes arise Inflammations so violent as in a few Hours to burn the Part affected to a Coal; which when a Suppuration happens all around it, is separated from the sound Parts, and falls off. 'Tis therefore obvious, that the Terminations of Inflammations are various, according to the different Causes from which they arise.

As for the Part affected; 'tis to be carefully consider'd, whether this is more or less necessary to Life and Health. Thus, for Instance, a pretty large inflammatory Tumor in the Hand is easily supported: But if, about the Fissure of the Glottis, the Membrane covering these Parts should be render'd tumid by an Inflammation, the Patient will be suffocated by a very small Tumor there. If, in the Hand or Foot, a Phlegmon should degenerate into a Gangrene, in these Parts the mortified Portion may be separated from that which is alive: But, if the alike Disorder should happen in the Brain, 'tis sufficiently obvious, that there are hardly any Hopes of the Patient's Recovery left. Not only a greater or smaller Danger depends on the Diversity of the Part affected, but, also, for the same Reason, the quite different Termination of the Inflammation. In glandular Parts a Scirrhus is to be dreaded. But in those Parts of the Body where the largest Quantity of Fat is, Inflammations arising often degenerate into obstinate Suppurations and Fistulas, as about the Anus, for Instance, and some other Parts.

As for the Largeness of the Inflammation; the larger the Part affected with a Phlegmon is, the more Vessels are obstructed, the greater Quantity of stagnating Fluids remain fix'd in the Vessels, and as has been already observed, the greater is the Velocity of the Circulation through the other pervious and unobstructed Vessels. But all these Circumstances are repugnant to the Conditions requisite to the Resolution of an Inflammation. Hence, in such a Case, a Suppuration or a Gangrene are always to be expected.

As for the Deepness of the Inflammation; we have already shewn, that almost all the Parts of the Body are subject to Inflammations, but that they happen no-where more frequently than in the Tunica Pinguinosa. Hence Inflammations may be seated either in this Coat, or in other Parts. If an Inflammation is seated in the Fat, which runs pretty deep in the Interstices of the Muscles, the Efficacy of Remedies externally applied can scarcely penetrate to it, and a Suppuration, or a Gangrene, happening after such an Inflammation, are not to be cured without the greatest Difficulty. But, if an Inflammation affects the Tendons, Muscles, Vessels, Membranes, Periosteum, and Bones, the Difficulty of the Cure is, for the same Reason, sufficiently obvious. The Disorders which may happen when the Viscera are inflamed, are well enough known to those who have frequent Opportunities of treating acute inflammatory Distempers.

As for the quick Increase of the Inflammation; whilst the Liquids remain stagnant in the obstructed Vessels, the Fluids propel'd to these Parts by the remaining Principle of Life produce some Effects, which are the already enumerated Signs of an Inflammation; but if these increase very quickly, if the Redness, Tumor, Heat, and Pain, are continually augmented, we may easily foresee, that the tender Vessels will be soon ruptured; that a Resolution is by no means to be expected; but that a Gangrene will speedily ensue: For this Reason we reckoned a moderate Motion of the Blood among the Conditions requisite to the Resolution of an Inflammation; whereas an accelerated Circulation of the Humours prognosticates a Suppuration, or a Gangrene.

As for the Nature of the Patient; every Man has a State of Health peculiar to himself: And tho' the Qualities of the Solids and Fluids may, in two distinct Persons, seem entirely different, yet they often both enjoy perfect Health; tho' the one may be dispos'd to some Sorts of Diseases, and the other to others. If a Countryman, inur'd to hard Labour, is seiz'd with a Pleurisy, he will scarcely recover; for the Density of his Blood, and the Rigidity of his Vessels, leave but little Hopes of a benign Resolution. But, in Persons of lax and weak Habits of Body, such Disorders are far more easily cured. The morbid Temperament, also, of those who labour under Inflammations, will produce different Terminations of an Inflammation. Thus, Persons of cold and mucous Constitutions rarely labour under Inflammations; and those, with which they are afflicted, are generally of the gentlest Kind. But, if a putrid Scurvy has tainted the Humours, the gentlest Inflammation, or even a slight Wound, degenerates into an obstinate Ulcer, or a Gangrene.

As for the Symptoms of an Inflammation; these we have before considered. From all these, duly adverted to, we may easily fore-

see in what manner an Inflammation will terminate. And thus a due Prognostic is made.

'Tis, also, obvious, that various Intentions of Cure must be pursued, according to the various States of this Disorder.

From what has been said, we now come to deduce curative Intentions, with respect to the most proper Method of removing this Disorder, when known. Nothing is certainly more prejudicial in the Art of Physic, than to prescribe a general Method of Cure for any Disease, without having a due Regard to its various States and Conditions. Thus, under the common Name of Pleurisy, are comprehended Diseases widely different, which, tho', at first, they might resemble each other, yet, in their Progress, they vary much, and require widely different Methods of Cure; for far different Measures are to be taken in the Beginning of a Pleurisy, from those to be us'd after it is of two or three Days standing, and the manifest Signs of a Suppuration appear. A general Cure, therefore, cannot be prescribed for Inflammations, but the Measures must vary according to the particular manner of Termination to which the Inflammation tends. 'Tis true, that, in the Cure, the Resolution of an Inflammation is always to be attempted, provided it seems in any Degree possible. But, if the Signs of a Gangrene are present, the only remaining Relief is, a Separation of the corrupted Part, by means of a Suppuration arising in all its Circumference, and the whole Intention of Cure ought to be directed to this End. But a Suppuration is carefully to be guarded against, so long as there are any Hopes of the Possibility of a Resolution, especially when the Inflammation has seiz'd any internal Part of the Body. The four different Manners, therefore, in which Inflammations terminate, are to be consider'd separately, and the Method of Cure, proper in each, describ'd.

First, then, we shall consider the Method of curing an Inflammation by Resolution; that is, when, by rendering the concremented Humours fluid, and putting those that are stagnant in Motion, the Inflammation is terminated.

If any of the Causes, therefore, already enumerated, produce an Inflammation in any Part, so that the first enumerated Symptoms and Conditions are present, the following Intentions of Cure are to be pursued.

1. The farther Injury of the Vessels is to be prevented.
2. The Injury already done them, is to be removed.
3. Fluidity and Mildness, are not only to be restored to, but also preserved in, the obstructing Matter.
4. Or, if this End cannot be obtain'd, it is to be forced back into larger Vessels.

Since these Intentions are of singular Use in the Cure of Pleurisy, Peripneumonies, Quinsys, and other Disorders of a like Nature, we shall consider them accurately, and apart.

The Condition of the Disorder, whose Cure we are to describe, is exactly determined in the Aphorism; for from whatever Cause the Inflammation arises, or whatever Part of the Body it affects, whether internal or external, provided it is recent, and the Conditions first enumerated present, a Resolution may be attempted, and is to be obtain'd, if the following four Intentions can be effectually answered.

1. To the Resolution of an Inflammation, 'tis requisite the concremented obstructing Matter should be rendered fluid, and that which is stagnant put in Motion, as we have already observ'd. But, unless the Vessels are preserv'd entire, the Fluids discharg'd from them, will necessarily become stagnant. Now, in every Inflammation, the Tumor, in consequence of the Distention of the Vessels, and the Pain arising from the Distraction of the Fibres, which are ready to be broken, sufficiently testify, that the Vessels would soon be ruptured, if the same Causes continued to act. But, when a Solution of Continuity is made in the Vessels, a Suppuration ensues, or, if the Solution should be sudden, a Gangrene. 'Tis, therefore, obvious, that in order to the Resolution of an Inflammation, 'tis necessary the farther Injury of the Vessels should be prevented.

2. So long as the inflam'd Vessels are as yet entire, the Injury to be done to them consists in too great a Dilatation, their Sides being distracted by the vital Fluid impel'd upon the obstructed Part. If, therefore, the too great Distention of the Vessels is remov'd, this Intention is answered.

Both these Intentions respect the Solids, whereas those which follow, have a relation to the Fluids.

3. The concremented stagnant Fluids remain in the obstructed Vessels, and as an Inflammation, properly so call'd, can only happen in the Arteries, as we have already observ'd, the Impetus of the succeeding Fluids will always force the obstructing Matter into narrower Parts of the Vessels: 'Tis, therefore, requisite this Matter should be so attenuated, as to become capable of passing thro' the narrowest Part of the obstructed Vessel. But the Attenuation of the concremented Fluid is not enough, unless the mild and benign Disposition of the Humours be at the same time preserv'd; for, when a Putrefaction arises, the concremented Blood is indeed resolv'd, but, at the same time, acquires a great Degree of Acrimony. But the acrimonious Substance, mix'd with the Blood, and, with a ra-

pid Motion; carry'd thro' the tender Vessels, already too much weaken'd by the previous Distention, must certainly soon destroy them. Hence, in this Case, a Gangrene, instead of a benign Resolution, will ensue; for we have already shewn, that the Acrimony of the Humours soon converts an Inflammation into a Gangrene. 'Tis, therefore, obvious, that the Mildness of the Humours ought always to accompany the Resolution of the concremented Matter.

4. It sometimes happens, that Molecules so large enter the dilated Beginnings of the Vessels, that they cannot be so far attenuated, as to pass freely thro' their narrowest Parts. Thus, in violent Inflammations of the Eyes, the red Blood enters the Vessels of the pellucid Cornea, which are still far smaller than those of the Adnata; but these are naturally so narrow, as to exclude every coloured Fluid. Though, therefore, the red Blood, remaining stagnant here, was resolved into Serum, and that Serum into Lymph, which is still finer, yet it could not pass thro' the Extremities of these highly minute Vessels. In this Case, the only remaining Method to bring about a Resolution is, to attempt a Retropulsion of the obstructing Molecules from the narrow Parts in which they are fix'd, to wider Parts of the Vessels, and thence into larger Vessels, that thus the Impetus of the Blood being weakened, its Motion, and Attrition on the Vessels, and adjacent Molecules, may be taken away, and the Inflammation determin'd.

The farther Injury of the Vessels is prevented,

First, By removing, or correcting, the known productive Causes of the Inflammation.

In the Cure of Diseases, all the Efforts of Art can do no more than restore Health. But the Causes of an Inflammation, before enumerated, are of such a Nature as to produce an Inflammation, when apply'd to the soundest Body: All Attempts, therefore, to promote a Cure, are vain and ineffectual, unless these Causes can be remov'd. Thus, when, by long lying, an Inflammation is produced about the Os Sacrum and Os Coccygis, if the Compression of these Parts by the incumbent Body cannot be prevented, the Inflammation must necessarily degenerate into a Gangrene. That the same holds true, with respect to the other Causes of an Inflammation, is sufficiently obvious.

Secondly, By lessening the Impetus of the arterial Blood, by means of the Venesection and Purging.

Two Things concur in an Inflammation, that is, a Stagnation of the arterial Blood in the smallest Canals, together with the Pressure and Attrition made by the Motion of the Blood, by the Fever forcibly impel'd upon the obstructed Part. Now, the Blood remaining stagnant in these Canals, produces an Obstruction indeed; but there would by this means be no farther Injury done to the Vessels of the obstructed Part, unless the Impetus of the arterial Blood acted upon it. The principal Thing, therefore, required, in order to prevent the farther Injury of the inflam'd Vessels, is so to diminish this Impetus, that the Vessels may be neither ruptur'd nor more distended by this Cause. Tho' the Motion of the arterial Blood cannot be entirely taken away, whilst Life remains, yet it may be render'd so moderate, as to prove no longer prejudicial; and this End is obtain'd

By Venesection.

We have already observ'd, that the remaining Principle of Life, where such a Stagnation is present, produces some Effects, which are the Signs of an Inflammation. By the Number and Violence of these the Malignity of the Inflammation is estimated, and its various Events prognosticated. When, therefore, by whatever Cause, Life is weaken'd and render'd less powerful, those Effects must, of course, be diminish'd, which depend upon the vital Motion of the Humours acting upon the obstructed Parts. We may, therefore, by Venesection at Pleasure, lessen the Motion of the Blood thro' the Vessels till Death, that is, a perfect State of Rest in the Blood is produced. We are, consequently, capable of more or less repressing the Impetus of the Circulation, according to the various Degrees of this Evacuation. *Helmont*, and after him some others, have condemn'd this Evacuation of Blood as useless, and prejudicial in the Cure of inflammatory Diseases; for this Author, as we find in *Capit. Pleura Pueris*, foolishly imagin'd, that a Pleurisy, for Instance, was produced by an hostile Acid sticking like a Thorn in the intercostal Spaces. Hence he, and his equally absurd Followers, tell us, *That Venesection is, in this Case, vain and useless; that the pleuritic Thorn is to be drawn out; that a Blood-thirsty Moloch presides over the Professors of the Healing Art; that the Disease is to be conquer'd by Specific Remedies, but that the Strength is not to be impair'd by Venesection.*

But from what has been said, 'tis sufficiently obvious, that this pleuritic Thorn is the stagnating Blood fix'd in the arterial Vessels; that the Fluids, propel'd from the Heart, act upon this Thorn, and by the Distraction of the Fibres, produce the intolerable Pain. 'Tis true, a perfect Cure might be produced, if the stagnant Blood, there lodg'd, could be forthwith resolv'd, and reduced to a State of Fluidity. But, surely, *Helmont* could never

never produce so surprising an Effect by all his Specifics. He, for this Purpose, extol'd the Blood which flow'd from a Goat immediately after Castration, when dry'd, and reduced to a Powder; the Penis of a Stag, and the Flowers of wild Poppies. But to any one who reads, in the Close of this Article, what he says with respect to his own Disease, it will be sufficiently obvious, that these boasted Remedies were of but little Efficacy. Since, therefore, it is not as yet certain, that there are any Remedies, which, when either externally applied, or internally exhibited, have a specific Virtue of suddenly resolving this stagnating and obstructing Blood; no more proper Method can be taken, than to prevent the farther Protrusion of this obstructing Matter into narrower Parts of the Vessels, and to guard against its greater Compaction and Consolidation. But both those Intentions may be obtained by lessening the Impetus of the arterial Blood, which may be both commodiously and safely done by Venesection: As also by

Purging; for this, after Venesection, is a most efficacious Method of allaying the preternatural Imperus of the Blood. There are Purgatives, which, without increasing the Motion of the Fluids, produce this Effect, and, at the same time, resolve the Humours. *Sydenham*, after thirty Years Practice, and a careful Observation of the various Measures Nature took in Diseases, recommends this Method in his *Schedula Monitoria de Novae Febris Ingressu*, published towards the latter End of his Life. In an inflammatory Fever, accompanied with a Determination of the morbid Matter to the Brain, after Venesection, this successful Practitioner ordered a purgative Draught, prepared of Tamarinds, Rhubarb, Sena-leaves, and Manna. In the Evening, he allayed the Commotions excited by this gentle Purgative, by exhibiting a mild Paregoric. Every other Day, for three times, he prescribed such a Purgative; and this Method he found successful during a Disease, otherwise of a very dangerous Nature. But he carefully inculcates, that such Purgatives prove injurious, unless Venesection is previously instituted.

But it is sufficiently obvious, that all these Measures are not requisite in every Inflammation, but only in Cases where the Soundness of the Part absolutely requisite to Life, or Health, does not admit of other Terminations of the Inflammation; or when the Inflammation is in such a Part of the Body, that, after Suppuration, the Pus cannot be commodiously discharged; from which Circumstance the worst of Disorders might afterwards be expected.

ANTIPHLOGISTIC PURGATIVES are,

Cream of Tartar, six Drams. Crystals of Tartar, six Drams. Tartar itself, six Drams. Sal Polychreston, five Scruples. The Pulps of Tamarinds, three Ounces. Tamarinds, four Ounces. Elder Rob, four Ounces. Rhubarb, a Dram and an half.

Take of the best Rhubarb, one Dram; of Sal Polychreston, a Scruple and an half; of the Syrup of Succory with Rhubarb, one Ounce: Triturate all together, and mix with two Ounces of the distilled Water of Elder-flowers, and two Drams of Cinnamon-water, for a Draught.

Take of the Pulps of the best Tamarinds, two Ounces; of Crystals of Tartar, reduced to a fine Powder, two Drams: Mix all together, and let the Patient take one Dram every half Quarter of an Hour, till he is purged.

Take of the best Sena-leaves, without the Stalks, two Drams; of the best Agaric, one Dram; of the best Tamarinds, two Ounces: Boil for a Quarter of an Hour in a close Vessel, with the distilled Water of Elder-flowers. Then, with every five Ounces of the express'd Decoction, mix of pure Nitre, one Dram; and of the solutive Syrup of Roses with Sena, six Drams, for a Draught.

Take of Sena-leaves, three Drams; of Tamarinds, two Ounces; and of Agaric, three Drams: Boil for a Quarter of an Hour with Water, and with each Pint of the Decoction mix of the Syrup of Succory with Rhubarb, one Ounce: Or this let the Patient take an Ounce every half Hour, till he is purged.

Thirdly, *By lessening the Quantity of the Humours by means of Venesection and Purgatives*. We have already observed, that the most frequent Cause of an Inflammation is a preternatural Dilatation of the lymphatic and arterial Vessels; in consequence of which, they admit Parts of the Blood too gross for passing thro' their Extremities. Now 'tis certain, that a Plethora is one of these Causes, by which the Beginnings of the Vessels are dilated. Since, therefore, Venesection and Purging lessen the Quantity of the Humours, they must, of course, prove beneficial by this very means. Besides, when the Quantity of the Humours is lessen'd, the Pressure and mutual Compaction of the Elements of the Blood are render'd less. But, from this Pressure, an inflammatory Density of the Blood often draws its Origin; for, if the Blood forc'd from the Heart rush'd into the empty Arteries, there would be no Resistance, and, consequently, no Compression; but, when the Heart expresses the Blood into full

Arteries, these Arteries must either be dilated, or the Blood contained in their Cavities compress'd. Now the fuller the Arteries are, the more they resist their Dilatation, and, consequently, a Condensation of the Blood must be produced. An Inflammation is, therefore, justly enumerated among the Effects of a Plethora; and, consequently, a Diminution of the Quantity of the Fluids, circulating thro' the Vessels, will so dispose the Body, as to render it entirely free from an inflammatory State, and rather make it tend to the opposite Condition, that is, a Dropsy, which generally succeeds large Evacuations of the Humours.

Fourthly, *By deriving the Impetus of the Blood to other Parts by Suction, Friction, Epispastics, Vesicatories, Fomentations, Baths, Fontanels, Setons, and strong Purging*. These were the Measures always employ'd by the sagacious Ancients for this Purpose, as appears from their Works. Thus *Hippocrates*, in the second Chapter of his *Treatise de Locis in Homine*, when treating of a Quinsy, thus expresses himself: "Patients labouring under this Disorder are to be bled in the Arm, and purged, that the Matter which produces the Disorder may, by this means, be carried off." *Galen*, also, in his *Method. Medend. ad Glaucon. Lib. 1. Cap. 16.* when treating of the Method of curing the Head-ach, tells us, that "an universal Revulsion is to be made by acrid Clysters, Ligatures, and frequent Frictions of the inferior Parts; as, also, by Venesection, if there is a Necessity for it. A Revulsion is, also, made by sprinkling on the Head Things of a repelling Quality." In these Authors many more Passages occur, which sufficiently testify, that, in several Diseases, they repos'd the greatest Confidence in Revulsions. *Helmont*, who, on all Occasions, discovers himself an Enemy to the ancient Physicians, laughs at Revulsions; and, since the Appearance of the incomparable *Harvey*, many have despised this Method as useless, and repugnant to the known Circulation of the Blood. But the Use of Revulsion, in various Diseases, is confirmed both by Reason and Experience; for, as soon as the Resistance to the Blood propel'd thro' the Vessels in any Part of the Body is either lessen'd, or entirely removed, the Blood is forthwith derived to that Part with greater Velocity. When an Artery of a considerable Size is cut, the whole Blood is discharged from the Part, because its Resistance is destroyed. When, after the Exclusion of the Fetus, the Vessels and Viscera are freed from so considerable a Pressure, unless the pendulous and flaccid Parts are supported by proper Bandages, the whole Blood is often derived thither with such a violent Force, that a due Pressure being wanting in the Vessels of the Brain and Cerebellum, the Patient dies of a Syncope. The same happens in those who labour under that Species of Dropsy called Ascites, whilst, after a sudden Performance of the Paracentesis, all the Water is eliminated, unless the Abdomen is carefully swath'd up. 'Tis, therefore, obvious, that, by diminishing the Resistance in any Part of the Body, the Blood is more copiously, and, with a greater Force, deriv'd to it. But the Blood, propel'd from the Heart thro' the Vessels, is resisted by their Plenitude, and the Firmness of their Sides, in consequence of which they resist their Dilatation. All Things, therefore, which empty the Vessels of any Part of the Body, or render their Sides more capable of yielding to the distending Blood, derive the Humours more copiously, and with a greater Force, to that Part. Now, if we consider, that the Blood forc'd from the Heart is partly distributed to the Head, and superior Parts of the Trunk of the Body, and partly to those which are inferior, it will be sufficiently obvious, that by a Depletion of the inferior Vessels, or a Diminution of their Resistance, the Blood is more copiously, and, with a greater Impetus, derived thither, and diverted from the superior Parts. 'Tis, therefore, possible to make a Revulsion of the Force of the arterial Blood, from the inflam'd, to any other Part; especially if the Place, to which the Revulsion is made, receives its Blood from the same large arterial Trunks. Thus, in inflammatory Disorders, Physicians foment the exterior Part of the Head, that, by increasing the Impetus of the Blood thro' the Ramifications of the external Carotid, the Pressure upon the internal Parts of the Head may be diminished. When the Callus of a fractured Bone became luxuriant, *Celsus* informs us, that "it is of some Advantage to apply Preparations of Mustard and Figs to the corresponding Member, till it is somewhat corroded, and the offending Matter, by that means, eliminated." But all Revellents either relax or empty the Vessels; for by Friction, or Stimulation, a more frequent Contraction of the Vessels is produced in the Part, towards which the Revulsion ought to be made. Now a Revulsion is principally obtained by the following means:

By Suction. This is most advantageously done by means of Cupping-glasses, by which the Pressure of the Atmosphere is removed, or, at least considerably diminished on the Part to which they are applied, either when the Air is exhausted, by means of an Embolus, or by Suction, or highly rarefied by raw Flax kindled in the Cavity of the Cupping-glass. As soon as in this Part the equable Pressure of the Air on the Surface of the Body is lessened, all the Vessels are proportionably more distended; the Part becomes tumid and red; and, if the Cupping-glasses remain a considerable time applied, a genuine Inflammation, or even a Gangrene, may be produced. *Galen*, in the last

Chapter of his twelfth Book *de Method. Medend.* observes, that Pains are surprisingly mitigated, after making a Revulsion by Cupping-glasses. *Hippocrates*, in *Sept. 5. Aph. 50.* in order to repress an immoderate Discharge of the Menfes, orders the Application of large Cupping-glasses to the Breasts. And *Van Sweiten* informs us, that he has frequently seen the most obstinate Inflammations of the Eyes, which would yield to no other Remedies, removed by no other means than the Application of Cupping-glasses to the Nape of the Neck. How much Cupping-glasses were used by the *Egyptians*, in Diseases of this Nature, we may see under the Article *CUCURBITULÆ*.

As for Frictions; the Veins, in consequence of their being easily compressed, are emptied by Friction. Hence the Arteries corresponding to these Veins more easily evacuate their Contents into the empty Veins; the Resistance, therefore, to the Blood, which afterwards is to flow into these Arteries, is lessened: For which Reason, it must be more copiously, and with a greater Force, derived thither, as is obvious from what has been already said. For this Reason, any Part of the Body may, by Friction alone, become hot, red, and inflamed; and if the Friction is continued, the Heat and increased Motion are communicated to the whole Body. For this Reason *Celsus*, in the 14th Chap. of his 2d Book, in acute Diseases condemns long Friction in the following Words: "It is improper, in acute Diseases to use long Friction, as also in the Increase of Diseases, except with a View to procure Sleep to phrenetic Patients." And, a little after, he mentions the Use of Frictions, in order to make Revulsion, in the following Words: "Frictions alleviate long-protracted Pains of the Head, though not under the immediate Paroxysm; and a paralytic Member is strengthened by Friction. But, when one Member is afflicted with Pain, its corresponding Member is far more frequently to be rub'd, especially when we intend to derive the Matter from the superior, or middle Parts of the Body. For this Purpose Friction of the extreme Parts is used."

As for Epispastics; these Medicines are so called from their attractive Quality, because they derive the Humours more copiously, and with a greater Force, to the Part to which they are applied. Now, tho' all those things, which relax and debilitate the Vessels in any Part of the Body, may be said to be possessed of an attractive Quality, because the Humours more easily enter the relaxed Vessels; yet the Epithet attractive is commonly bestow'd on these things, which, by their acrid Stimulus, irritate the Vessels of the Part to which they are applied, to more frequent and strong Contractions, that is, accelerate the Motion of the vital Humours through the Vessels: Now these Substances of an attractive Quality, receive different Names, according to their greater or smaller Degree of Acrimony: Such as only excite a gentle Redness in the Part to which they are applied, are called *Phænimoi*: When they produce a greater Degree of Redness, Heat, Itching, and Tumor, they are generally called *Sinapisms*; because Mustard-seed triturated, and applied to any Part of the Body, produces all these Effects: Substances still more acrid, and capable of raising the Epidermis in small Bladders, are called *Vesicatories*: But if, like Fire, they burn the Parts to which they are applied, they are called *Causitics*. All these things excite a true Inflammation in the Part to which they are applied; and, if they are highly acrid, may increase this Inflammation into a Gangrene. Of how great Efficacy these are, in deriving the Impetus of the Blood to other Parts, we are convinced from Instances which daily occur in Practice. If the Feet of a Patient, labouring under an acute Phrenitis, are cover'd with a Paste, mix'd with triturated Mustard-seed, Shavings of Horseradish, or other Substances of a like Nature, the Disorder is often, in a few Hours, alleviated, by the Pain and Inflammation produced in these Parts; and the Patient begins to recover. When Nature endeavours to secrete the hurtful Parts from the common Mass of Humours, and deposit them in some particular Parts of the Body, Physicians, by means of Epispastics, generally, with great Success, derive the peccant Matter to those Parts, where it will, in all Probability, prove least injurious: Thus, when, in the Beginning of the Small-pox, the Feet and Legs are fomented with emollient Decoctions, and Epispastics are applied to the Soles of the Feet, the Pocks appear very thick on the inferior Parts of the Body; whereas very few are found on the Face, and superior Parts; as *Van Sweiten* informs us, he has often observ'd. From what has been said, the Use of Substances of an attractive Quality is sufficiently understood.

As for Vesicatories; these, as we have already observ'd, are stronger than Epispastics; and, when applied to a Part of the Body cover'd with Skin, separate the Epidermis, and raise it into Blisters, distended with Fluids; from which Circumstance they receive their Name. Now all things capable of exciting a violent Inflammation are, also, Vesicatories; for, whilst an Inflammation is degenerating into a Gangrene, these Blisters of the Epidermis are the first Signs of the beginning Gangrene: Thus, also, live Fire raises the Epidermis into Blisters: Hence all highly

acrid Remedies, such as Meadow Crow-foot, Water-pepper, or the lesser acrid Houlleek, if applied in large Quantities, or for a considerable time, excite Blisters. But, for this Purpose, Cantharides are most generally used, which are dry and juiceless Insects, sometimes capable, as *Van Sweiten* informs us, of being kept for thirty Years, in a Glass Vessel but indifferently closed, without losing their Virtues: These Cantharides, grossly triturated, are mixed with adhesive Plaster, or Pâte, which, for eight or ten Hours, is to be applied to the Part to which the Revulsion is to be made, in which time the Blisters generally appear. But if this Application is continued too long, by irritating the nervous Pulp lying under the Epidermis, it often excites intolerable Pains, and sometimes an uneasy Strangury, and a Discharge of bloody Urine.

As all these things are possessed of a considerable Acrimony, by irritating the Part to which they are applied, they often increase the Motion of the Blood through the whole Body. But as this Circumstance is repugnant to the Intention to be pursued in this Case, as we have already shewn, Cantharides are, for that Reason, to be used with the greatest Caution.

As for Fomentations and Baths; these are generally prepared of Water, with an Addition of such things as are possessed of an emollient and relaxing Quality: But all the Preparations of this Kind act only as they relax the Solids, and lessen the Resistance made by the Sides of the Vessels: Hence they are more easily dilated, tho' the same Causes continue to distend the Vessels. The most efficacious of all these are Vapour-baths; for any Part of the Body, for a Quarter of an Hour, exposed to the Steam of tepid Water, begins to swell. But, when the Revulsion is to be made, to such Parts of the Body as cannot be commodiously immersed in a Bath, Fomentations are, of all others, the best Succedaneum; provided they be kept warm.

As for Fontanels; the Skin is cut as deep as the Membrana Adiposa; or, in those who are afraid of the Knife, the desired Effect is to be obtain'd by the potential Caustery. When a Wound is thus made, a Globe of Gold, Silver, Ivory, or any other Matter not soon subject to change, is to be put into it, and so secured by an adhesive Plaster, that it may not fall out: Thus, by the Interposition of the foreign Body, the Concretion of the Lips of the Wound is prevented, and a slight Contusion is made, in all the Circumference of the Wound, by the Pressure of this hard Body: Hence there is produced a continual slight Inflammation, and a gentle Irritation in the Part to which the Impetus of the arterial Blood is to be deriv'd. Fontanels are principally advantageous to those Patients whose Solids are so flexible, that, by the least Excess of the Force of the Blood, they may be easily dilated, and, by an *Error Locii*, admit the grosser Parts of the Fluids: Thus, for Instance, Fontanels often prove highly advantageous to those who, on the slightest Accounts, labour under an Ophthalmia. But, when a violent Inflammation suddenly seizes any Part, it is sufficiently obvious, that Fontanels are of no Use; for the Part affected may be long corrupted by a Gangrene, before the Efficacy of the Fontanel can be reasonably expected. The same holds true with respect to

Setons. These are generally made in the Nape of the Neck, for which Purpose, the Surgeon raising the Skin, and Membrana Adiposa, with a Forceps, with a large Needle made on purpose, passes a gross Thread through the Part, and leaves it in the Wound, through which it is to be daily drawn: Hence there is produced an Irritation, and continual Inflammation, in the Part in which the Seton is. Setons are of the same Use with Fontanels, but generally produce a greater Pain and Irritation. *Van Sweiten* tells us, that he has seen obstinate Head-achs, which would yield to no other Remedies, cured by the Revulsion made by Setons; and, in practical Authors, many Observations occur, which confirm this Truth.

As for strong Purging; how beneficial it is, in inflammatory Diseases, to lessen the Impetus and Quantity of the Humours by Purging, as, also, what Purgatives are most proper for this Purpose, we have already observed. But we must, also, observe, that these are, likewise, beneficial for making a Revulsion of the Imperius from the inflamed Part; especially if the Disorder is lodged in the superior Parts of the Body: For, by the mesenteric Vessels, so large a Derivation may be made to the Cavity of the Intestines, that scarce any Pressure shall remain on the Vessels of the Brain: Hence it is, that drastic Purgatives frequently produce Vertigos, and even Deliriums. In Inflammations of the Eyes, when the whole Adnata is red, in consequence of the Ingress of the grosser Parts of the Blood into the small Vessels, by exhibiting a drastic Purgative, the Eyes and Face become pale, and, the Blood being repelled into larger Vessels, a Cure is often suddenly and successfully perform'd. Clysters, in like manner, frequently injected, produce this Effect, partly by relaxing, and partly by their gentle Stimulus, deriving the Impetus of the Humours to these Parts. *Hippocrates*, in his Treatise *de Locis in Homine*, when treating of the Method of curing Pains of the Ears, after ordering the Application of Cupping-glasses to the opposite Part, in order to prevent a Fluxion of the Humours to

the Part affected, uses these Words: "If, says he, these Measures are of no Service, a Purge is to be exhibited; but Vomiting is of no Advantage." And a little after, when treating of Inflammations of the Eyes, he subjoins these Words: "If the Eyes become suddenly inflamed, we are not to anoint them with anything; but the inferior Parts are to be strongly cauterized, or the Humours lessened by some drastic Purgative; taking care, at the same time, not to excite a Vomiting." Hence it is obvious, that the ancient Physicians used Purgatives, in order to make a Revulsion from inflamed Parts, and these of a very strong and drastic Quality: For, in the Passage now quoted, Hippocrates uses the Word *ἀντιφλογιστικά*, which implies an Extenuation of the Body, and a collapsed State of the Vessels, in consequence of a violent Evacuation. But, in Cases of this Nature, he carefully cautions against Vomiting; because, during this time, the Impetus of the Blood to the Head is increased, as is sufficiently obvious, when we only look at a vomiting Person; for the Eyes become red, and discharge Tears, whilst the Lips, and whole Face, are distended and rendered turgid with Blood.

Fifthly, By a somewhat cold and dry Air; the total Extinction, or, at least, great Moderation of the Passions; Rest, either natural or artificial; a thin, liquid, and antiphlogistic Diet; Drink of the same Kind; together with diluting, and, at the same time, refrigerating Medicines.

We now come to consider these things, by which the Motion of the Humours through the Vessels may be rendered highly moderate, in order to prevent the farther Injury of the inflamed Vessels.

As for a somewhat cold and dry Air; this is beneficial, in so far as it is received into the Lungs, in Respiration: For it is certain from Physiology, that the Blood, forced from the Right Ventricle of the Heart, through the narrow Channels of the Pulmonary Artery, soon becomes hot by its Attrition, and, consequently, stands in need of the cooling Influence of the Air: But, if the external Air is too hot, this cooling Quality is not to be expected in it; for Boerhaave, in the first Volume of his Chymistry, has, by various beautiful Experiments, shewn, that, in live Animals, an highly acute Fever is excited, which, in a few Hours, proves mortal, when they are long pent up in a too hot Atmosphere, and deprived of the grateful and refreshing Influence of a cooler Air: It is, therefore, obvious, that a somewhat cold Air contributes greatly to the moderate Circulation of the Blood; and, all other Circumstances being alike, a dry is always preferable to a moist Air. And, if a moist Air is, at the same time, cold, it may do Harm, by cooling too much; for it is observable, that, in the Autumn and Winter, Persons are more affected with a Sense of Cold, when the Air is moist, than when it is dry, though, at the same time, the Thermometers seem to retain the same Degree of Heat: This seems to happen, because the Air surrounding our Bodies is sooner rendered warm by their Heat, when it contains no Water, or, at least, a very small Quantity; for, as Boerhaave justly observes, in the first Volume of his Chymistry, "The more dense any Bodies are, whether fluid or solid, the more Time they require to become equally warm by the same Fire."

As for a total Extinction, or, at least, a great Moderation of the Passions; it is certain from daily and undeniable Experience, that the Circulation of the Humours may be very much accelerated by violent and exorbitant Passions of the Mind: Hence it is obvious, that these are carefully to be avoided; and, when, excited, forthwith checked and allayed.

As for Rest, natural or artificial; it is certain, that Rest is of the most happy Influence, in Disorders attended with too violent a Circulation of the Juices. Now, when the Mind is ruffled by no Passions, and when nothing acts forcibly upon the Organs of Sense, the Patient generally falls into a calm and profound Sleep: For this Reason, in acute inflammatory Diseases, the ancient Physicians ordered the Patients to be lodged in dark Rooms, remote from Noise. But if, by these means, Sleep cannot be procured, after taking the Measures before specified, Anodynes may be safely used.

As for a thin, liquid, and antiphlogistic Diet; in order to restore what, by the necessary Effects of Life and Health, is daily lost by the Body, Aliments are necessary, which, tho' of the best Kind, are still of a foreign Quality, and must, by the Action of the Vessels and Viscera, be suited and adapted to the Nature of our Fluids. But, whilst this Change of the Aliment taken is performing, if its Quantity is either too large, or if it produces, in the soundest and most robust Persons, a slight Fever, by which the Matter exciting these Commotions is either corrected or expelled: And the soundest Persons, almost every Day, perceive their Pulses quicker for some Hours after Dinner. The weaker those Powers are, which change the crude Aliments into laudable Blood, the more the Circulation will be accelerated, by the Aliments taken. If a tender Girl should eat

smoked Flesh, Bacon, or any other Aliments of difficult Digestion, she will be feverish for some Hours after Dinner. Phthical Patients, also, gradually wasted by an hectic Fever, perceive their Disorder increased by a copious Use of Milk: But, since the Assimilation of the Aliments to the Nature of sound human Fluids principally depends upon the Action of the Solids upon the Fluids, and the large Quantity of the Humours already concocted, with which a little of the crude Chyle is gradually mixed; as is shewn under the Article *FIURA*; and since, by Venesection and Purging, the concocted Humours are to be evacuated, and the Impetus of the Circulation lessened, in order to cure an Inflammation by Resolution it is sufficiently obvious, that only such Aliments ought to be used, as are very easily digested. In Cases of this Nature, all those Substances are, also, proper, which, by the gentlest Action of the Chylopoietic Viscera; especially of the Lungs and Arteries, easily farther elaborated into Blood: Hence Whey, and, especially, the acidulated Serum of Butter-milk; Milk diluted with a double or triple Quantity of Water; Pisans, prepared of Barley and Oats; and the recent Juices of Summer-fruits, are so beneficial in Cases of this Nature, especially when used often, but in small Quantities; for such a Regimen will never overload the Body, but prove a grateful Cooler to it; a Circumstance of no small Importance, in acute inflammatory Disorders: Hence, in intense Summer Heats, Persons who are sound, and Patients labouring under hot Diseases, spontaneously desire thin, liquid, and refrigerating Aliments, and are disgusted at those of a contrary Quality; whereas, in the Winter Season, and in languid Diseases, proceeding from a cold Cause, the opposite Regimen is beneficial. Thus Hippocrates, in his *Epidemics*, Lib. 6. Text. 18. tells us, that "Weak Aliments are cooling, and such as are strong heating."

As for thin, liquid, and antiphlogistic Drink; the Juices of Lemons, Oranges, Cherries, Currants, or their inspissated Syrups, or Robs, sold in the Shops, when diluted with a large Quantity of Water, make a very grateful Drink; and, since there may be a great Variety of these, and since every thin and cooling Liquor is proper, the Patient may choose which is most agreeable to his Palate.

As for Medicines of a diluting, and, at the same time, of a refrigerating Quality. The arterial Blood remains stagnant in the minute Canals, and, by the Impetus of the Blood, propelled from the Heart, is pressed, and put in a State of Attrition, as is obvious from the Definition of an Inflammation; and we have already shewn, that an intense Heat is produced by this Attrition. In order, therefore, to prevent the farther Injury of the inflamed Vessels, those Medicines are proper, which, by their diluting Quality, are at once capable of resolving the concremented and obstructing Matter, and of removing the preternatural Heat. In these Cases there is, properly speaking, only one Diluter, which is Water; and all other Medicines only prove diluent, in consequence of the Water they contain: But we have just now observed, that liquid Aliments, and thin, that is, aqueous Drinks, were proper in this Case; for which Reason they will concur with the Medicines, in order to promote the Dilution. Refrigerating Medicines are such as either remove or lessen the Causes of a preternatural and intense Heat: But we have already shewn, that the excessive Heat accompanying an Inflammation arises from an increased Circulation, and the violent Attrition of the Solids upon the Fluids, and of the Fluids on the Solids, in the inflamed Vessels, as, also, in the adjacent Vessels, as yet pervious, but rendered narrower by the Tumor of the obstructed Vessels lying contiguous to them: Refrigerating Medicines, therefore, are all such as are capable of removing the preternatural Density of the Fluids, relaxing the infarcted Vessels, and diminishing the excessive Force of the Circulation. All aqueous Substances are, therefore, not only diluting, but, at the same time, refrigerating; for it is observable, that, the colder the Temperament of the Body is, the greater Quantity of Water is found in it; and, on the contrary, that the greater the Heat is, the less diluted the Blood appears to be: Hence all the Parts of dropical Persons are cold; whereas there is a great Degree of Heat in robust Persons, and those accustomed to Exercise. Water is, also, beneficial, in as far as it relaxes the Solids of the Body, as is shewn under the Article *FIURA*. Now, when the Blood is diluted by aqueous Substances, and the Vessels relaxed, the Impetus of the Circulation is always diminished, as is sufficiently obvious in those tender Girls, who, by the Abuse of tepid aqueous Liquors, render themselves subject to so many Languors: When, therefore, there are any Hopes, that the Inflammation may be resolved, the Basis of all antiphlogistic Medicines is Water; to which are added, the most emollient farinaceous Substances, in order the more to relax the Vessels; and highly resolvent Medicines, in order to attenuate the inflammatory concremented Matter, and render it capable of circulating. There may be various Formulas of Medicines of this Kind, some Specimens of which we shall subjoin. But, before we proceed to this, we shall just observe, that Venesection and Purging prove cooling in inflammatory Diseases.

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A MEDICINE which is at once of a diluting and a refrigerating Quality.

Take of the Roots of Sorrel, two Ounces; of the Roots of Grass, and Vipers-grass, each two Ounces; of the Leaves of Brooklime, Wood-sorrel, and Agrimony, each one Handful: Boil in Water for half a Quarter of an Hour; then add, of the Flowers of Borrage, Bugloss, Roses, and Violets, each one Pugil. Let them stand in Digestion for half a Quarter of an Hour; and, when depurated, with every three Pints of the Liquor, mix of pure Nitre, two Drains; and of Elder-rob, three Ounces: Of this Preparation let the Patient drink three Ounces every Hour of the Day.

Or,

Take of the distilled Water of Elder-flowers, fifteen Ounces; of Elder-rob, two Ounces; and of pure Nitre, one Dram: Mix all together, and let the Patient drink an Ounce of the Liquor every Hour.

Or,

Take of the bruised Seeds of the Burdock, four Drains; of the Seeds of Parsley, six Drains; and of the Seeds of Succory, one Ounce: With distilled Parsley-water make into an Emulsion; with every twelve Ounces of which, mix of pure Nitre, one Dram; and of the Syrup of the Five aperient Roots, one Ounce: Of which Preparation let the Patient take an Ounce every Hour.

Or,

Take of unwashed diaphoretic Antimony, one Dram; of Sal Prunellæ, half a Dram; and of Zedoary-root, one Scruple: Make into a Powder, to be divided into six Doses; one of which is to be taken every three Hours, in some proper Pisan.

6. By allaying the Impetus in the Part affected by the external Application of Refrigerants, Repellents, and Astringents, variously mix'd up with Anodynes and Aperients, as the Nature of the Case seems to require.

We have already consider'd those Remedies, which by clinging other Parts, or the whole Body, prevented the farther Injury of the Vessels; but we now come to treat of these, which, being externally apply'd to the Part affected, are capable of allaying the preternatural Impetus of the Humours. We have already observ'd, that by the Irritation of the Fibres, in the Part affected, the Motion of the Humours is accelerated not only in that, but, also, thro' all the rest of the Body. Every thing, therefore, which, being apply'd to the inflam'd Part, is capable of removing this Irritation, will allay the Impetus of the Humours. But this Irritation was produced, because the Blood, acting upon the obstructed Vessels, distracted their Sides. Every thing, therefore, capable of resolving the Obstruction, and procuring a free Passage to the Blood thro' pervious Vessels, will remove this Irritation. But this End may be obtain'd in two Manners, either by so relaxing the obstructed Vessels, that they may transmit thro' their Extremities the obstructing Molecules into the Veins; or by so constricting the Vessels, by means of Refrigerants, Repellents, and Astringents, that the obstructing Matter may be repel'd from the narrow to wider Parts of the Vessels. This latter Method was frequently us'd by the Antients in the Cure of Inflammations, when, without any evident previous Cause, any Part of the Body was suddenly inflam'd, in which Case they deduced the Origin of the Disorder from Fluxion. Galen, in his *Method. Medend. ad Glaucon. Lib. 2. Cap. 2.* when treating of this Subject, informs us, that some Physicians, attach'd to the Sect of the *Methodics*, affirm'd, that Inflammations requir'd relaxing Medicines, because they thought they proceeded from Stricture; for the Physicians of this Sect deduced the Causes of all Diseases from Stricture and Relaxation; and that, afterwards, many rashly embraced this Opinion. But, a little after, he subjoins, that both Reason and Experience teach us, that, after due Evacuations, the inflam'd Part is to be anointed with such Remedies as are capable of repelling the influent Humours, and at the same time of evacuating those already contained in the Part affected, and restoring the Tone and Strength of the Parts. For these Purposes, he recommended Housleek, Pomgranate-peel, and Sumach, which are manifestly possess'd of a refrigerating and astringent Quality. And, in the following Chapter of the same Book, he tells us, that Inflammations, arising from any other Cause than a sudden Fluxion, may be mollified and rendered warm.

From what has been just now said, as, also, from what was advanced concerning the Effects of actual and potential cold Substances apply'd to inflam'd Parts, 'tis obvious, that Refrigerants, Repellents, and Astringents, are only sometimes, but not always, beneficial, and that great Caution is necessary in their Application, since they may prove very injurious, where they are not beneficial. In slight Inflammations, they are often highly serviceable, if apply'd in the Beginning. Thus *Van Swieten* tells us, that he has frequently seen beginning Inflammations of the Eyes

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cured by the Application of cold Water alone. But when the Disease is of longer standing, the inflammatory obstructing Matter impacted in the Vessels is not capable of being so easily repelled. Hence, the Vessels being, by these Applications, constricted, and the Fluids coagulated, the Disorder will be increas'd. In this Case, therefore, relaxing and aperient Medicines, which open the Vessels, and resolve the obstructing Matter, are of all others most proper. The prudent Physician must, therefore, chuse Remedies adapted to the particular State and Condition of the Disorder.

With these, Anodynes, or such Medicines as allay Pain, may, also, be mixed. Now those Medicines which allay Pain, act in three Manners; for they either remove the Cause, or so dispose the Part of the Body to which the dolorific Cause is apply'd, as to render it less affected by it. Or, lastly, whilst the Cause subsists, and without inducing any Change on the Part affected, they remove the Sense of Pain. All the Things, therefore, now enumerated, are Anodynes, in so far as by opening and relaxing the obstructed Vessels, or repelling the obstructing Matter, from narrower to wider Parts of the Vessels, they either remove the Causes of the Pain, or so dispose the Part, as to be less affected by these Causes. Besides, such Things may be us'd as sooth the Sense of Pain in the Parts to which they are apply'd, provided, at the same time, those Medicines are not neglected, which are capable of removing or correcting the Causes of the Pain. Hence, the Leaves of Nighthshade, Henbane, and Hounds-tongue, may be mixed with the Fomentations to be apply'd to inflam'd Parts; for the Effects of violent Pain are a Fever, Heat, Thirst, and Dryness, all which are injurious to inflam'd Parts; and, as most of these arise from the Sense of Pain, 'tis obvious, that much Advantage is to be expected from such Medicines as allay Pain.

The Injury done to the Vessels is remov'd by the Use of the same Things mention'd in the preceding Aphorism; for the preternatural Distraction being remov'd, the proper Strength of the Fibre will restore it to its natural Form, and Nutrition will afford a fresh Supply of Strength.

The Injury done, is the Distention of the obstructed Vessel, by the Pressure of the vital Fluids acting upon the Part obstructed. Now, since all the things enumerated in the preceding Aphorism either lessen or divert the Impetus of the Blood, 'tis obvious, that the Injury done must be remov'd by the same Remedies; for so long as there are any Hopes of a Resolution left, the Cohesion of the Vessels is not destroy'd, tho' they may have been violently distracted. Hence, as soon as the Obstruction is resolv'd, the distracted Fibres, by their proper Strength, gradually return to their former Dimensions; for the whole Disorder then remaining is a Weakness of the Fibres produced by too great a Distraction [see the Article *FURIA*], which is cured when the distracting Causes are removed, and the Parts lost restored by proper Aliments duly changed by the Force of the Viscera and Vessels. Now, the firmer and more elastic the Vessels distended by the Inflammation are, the sooner they return to their pristine Form; and, on the contrary, the more tender the Vessels are, in which the Inflammation is lodg'd, the longer Time is requisite, before their due Strength can be restored. Perhaps, from this Circumstance, we may account for some Phenomena, which, after inflammatory Disorders of the Brain, cured by Resolution, often continue for a long time afterwards. It, also, sometimes happens, that after a Phrenitis, or violent Deliriums in acute Fevers, and the Small-pox, the Patients continue incredibly weak, or labour under a Perturbation of all, or only some of the Functions, which depend on the Brain. If, in Cases of this Nature, the Cure is attempted by Vesicatories, Cathartics, Sudorifics, and other Evacuants of a like Nature, or such Things as throw the Fluids into violent Commotions, the Patient is rendered worse; but, if the Disorder is committed to Time and Nature, it gradually disappears. The incomparable *Sydenham*, who was both industrious and sagacious in tracing and investigating the true Natures of the most latent Diseases, declares himself of this Opinion, in his *Schedula Monitoria de Novæ Febris Ingressu*; for he observ'd, that in a continual epidemical Fever, which, soon affecting the Head, generally produced a Phrenitis, after general Evacuations by Venesection and Cathartics, a Coma remained for some time; which, however, after a considerable Number of Days, disappeared, provided the Patient daily rose out of Bed, and was not harass'd by drastic Medicines; for, in Cases of this kind, the equable Motion of the Humour thro' the Vessels of the Brain seems to remain disturbed, till the due and natural Strength is restored to the Vessels weakened by the two great Distention.

The Fluidity of the obstructing Matter is procured by attenuating, and diluting it:

1. By restoring the elastic Oscillations of the Vessels; by diminishing the distending Fluids, by means of Venesection, and strong Purging; as, also, by adding a Stimulus to the Fibres, by means of thin aromatic Liquors drank warm, Fomentations, Frictions, the Application of Cupping-glasses, and Scarifications.

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The third Circumstance, requisite for the Cure of an Inflammation by Resolution, was, to procure and preserve a due Degree of Fluidity and Mildness to the obstructing Matter, as we have already observed; so that we now come to treat of the Method and Remedies by which these Ends may be obtained. We shall, therefore, first, consider those things by which the Fluidity of the obstructing Matter is so effectually procur'd, that it may, without any Obstacle, pass through the narrowest Extremities of the Vessels. This Effect seems capable of being produced in two Manners; either by Dilution, when, for Instance, Water, by the Admixture and Interposition of its Parts, separates the united Molecules of the Blood; or by an Attenuation, perform'd by the Attrition of the Vessels, and Frictions; as, also, by such Remedies as, by the Figure and Rigidity of their Parts, are capable of dividing the concreted Molecules. Diluent and attenuating Medicines may, therefore, be so mix'd, as, by their joint and concurring Virtues, to produce more considerable Effects, than either would do separately.

The human Blood, if left in a State of Rest, spontaneously tends to Concretion; and so much the more, the stronger the Person is. A continual Motion and Change of Situation are, therefore, requisite in the Particles of the Blood, in order to prevent their Concretion; and, by this Motion and Change of Situation, those Parts, which had already begun to be concreted, are again resolv'd. When a Person falls into a Deliquium, the Blood stagnates in the large venous Receptacles about the Heart, and especially a large Quantity of the Blood is collected between the Right Ventricle of the Heart and the Lungs, in the Auricle, and the venous Sinus, where it immediately tends to Concretion. When, by the Sprinkling of cold Water, such a Patient begins to recover, a violent Palpitation of the Heart forthwith arises. The Blood, which is now viscid, and, as it were, beginning to be converted into polypose Concretions, sticks in the narrow Parts of the pulmonary Artery, by the Contraction of which these Concretions are forced back: Thus they are carried backwards and forwards, till, by their repeated Attrition on the Sides of the Vessels, they are resolv'd. Then all the Patient's Anxiety is remov'd, and a free Passage given to the Blood expelled from the Right Ventricle of the Heart, thro' the narrowest Parts of the pulmonary Artery. The same Effect may be expected in an Inflammation, if the elastic Oscillations, with which the Vessels were before mov'd, are restor'd to them; for, if we consider those Causes, by which, in a State of Health, the human Vessels are mov'd, it is obvious, that, in an inflam'd Vessel, the oscillatory Motion, by which it ought to be alternately distended and contracted, must be wanting; for, when the Heart contracts itself, it expels all the Blood contain'd in its Cavities into the full Arteries, which, as they are flexible, are by that means dilated. But, in a Moment after, when the Heart is in its Diastole, the Arteries, by their proper Elasticity, and the Action of their muscular Fibres, are again contracted; by which means the Blood, contain'd in their Cavities is carried forwards: And, since the Valves of the Aorta hinder the Blood from being press'd back to the Heart, that Fluid is, by this Force, convey'd from the Arteries to the Veins. Now, if we suppose any Obstacle lodged in the Cavity of an Artery, capable of hindering the free Circulation of the Blood, the Blood, impel'd by the Force of the Heart, may dilate such an Artery; but the Artery dilated cannot be next Moment contracted, because the Blood contained in its Cavity cannot pass through its obstructed Extremity, and the Impetus of the succeeding Fluids will hinder its Regress: Such an Artery will, therefore, remain distended and full, but without Motion, since its Elasticity and muscular Force are not capable of surmounting the Resistance of the obstructing Fluid. Now the oscillatory Motion of such an Artery can only be restor'd by diminishing the Quantity of the distending Fluid; but its obstructed Extremity prevents the Conveyance of this Fluid into the corresponding Vein. Hence nothing remains to be done, but so to diminish the Quantity and Force of the Fluids, that the natural and efficacious Contraction of the Artery may be restor'd, and, consequently, the contain'd Blood forced back to the Base of the Artery. Then this obstructing Matter, being no longer acted upon by the succeeding Fluid, will, by the Contraction of the Artery, be forced into its wider Parts, unless it remains firmly impacted, and totally immoveable in the narrow Parts; but, the Moment after, it is propel'd into the former narrow Channels. Thus, by being carried backwards and forwards, there will be an Attrition of it on the Sides of the Vessels, and the contiguous Molecules of the Blood. Hence an Attenuation and Division of the concreted Molecules may be justly expected. But that the concreted Molecules may be again so dissolv'd, as to become capable of passing through the narrowest Parts of the Arteries, is, in some Cases, obvious to the Senses. Thus *Leeuwenhoek*, in his *Experiment. & Contemplat.* supplies us with an Observation, which effectually demonstrates the Efficacy of this alternate Motion of the Vessels, in dissolving concreted Blood. In a Rat, reduced to a languishing Condition by Cold and Hunger, but afterwards a little recover'd, he, with a Microscope, view'd the thin Membrane us'd by that Animal as Wings; but he observ'd no Motion either in the Arteries or

Veins. Six Hours afterwards, however, when the Animal became more vigorous, he saw an oblong Particle of concreted Blood filling the whole Artery, protruded, and immediately after repel'd, and in this manner continually carried backwards and forwards, till, being resolv'd by the Attrition, the whole Mass became capable of passing from the Artery to the Vein. How the Quantity and Impetus of the distending Fluid may be diminished by Venesection and Purgings, we have already specified. But how much the Diminution of the distending Fluids contributes to restore the oscillatory Motion of the Vessels, suffocated by too great Plenitude, is sufficiently obvious in plethoric Patients, in whom, if the Disorder rises to a great Height, the Pulse is hardly perceptible; but when, by copious Venesection, the Quantity of the Blood is diminished, the Pulse beats sensibly, and all the Functions, before almost suppress'd, are restor'd.

By the Addition of a Stimulus to the Fibres, by means of thin aromatic Liquors, drank warm. The celebrated *Baglivi*, in his *Treatise de Fibra Motrice & Morbosa*, has demonstrat'd, that the solid Parts of the Body are possess'd of such a surprising Property, that, when irritated by any Stimulus, they are often capable of exciting wonderful Commotions either by increasing the natural Motion, which in a State of Health they ought to perform; or by entirely perverting and disordering it. It is certain from Experience, that in the larger Parts any Stimulus produces this Effect. The Aliments taken, by the Motion of the Stomach and Intestines, are gradually carried through all their Gyration and Meanders, to the Extremity of the Intestinum Rectum; and, during the Whole of this Passage, being deprived of all their dissolvable Parts, are, at last, eliminated from the Body. But if the Intestines are irritated by a purgative Stimulus, the Aliments are, in a short time, discharged by Stool; since they are propel'd by the accelerated peristaltic Motion of the Intestines. Whilst acrid Poisons corrode the internal Surface of the Intestines, they often contract all the Parts they touch so violently, as entirely to close them up. Hence, in consequence of the intercepted elastic Air, enormous Tumors of the Abdomen are sometimes produced. And this Irritability is so essential to some Parts of the Body, that it remains after Death, and when these Parts are separated from the rest. Thus we are inform'd by *Lord Bacon*, that the Heart of an embowel'd Man, when thrown on the Fire, jump'd pretty high, and continued to do so for seven or eight Minutes. *Peyer*, upon laying open the Breast and Abdomen of a Cat, who died after Abortion, and had been stiff for a considerable time, and inflating the Receptacle of the Chyle, was surpris'd to find, that as soon as the Air was conveyed to the Heart, first the Auricles, and then the whole Heart, vibrated for several Hours. By this casual Discovery being induced to make the same Experiment on human Carcasses, it was attended with the like Success, though in some the Motion of the Heart was excited with more, and in others with less Difficulty: And sometimes, also, besides the Air blown in, which must be warm, he found a Necessity for an external Fomentation. But *Peyer*, in his *Parerg. Anatom.* informs us, that the Hearts of Persons hanged are not only easily susceptible of Motion, but, also, retain it for a long time. From all these Circumstances it appears, that the Fibres of the Viscera and Vessels may, by the Application even of a gentle Stimulus, be irritated to greater Motions. When the soundest Person uses too large a Quantity of Salt, Aromatics, or Wine, the Heart and Vessels will, by these, be stimulated into a brisker Motion, and a Fever produced. When, therefore, the obstructed Vessels are long and violently distended by the Impetus of the succeeding Fluids, the Fibres, being often too much distracted, lose their Force, and do not re-act with sufficient Strength upon the contain'd Fluids. After, therefore, by Venesection and Purgatives, the Quantity of the distending Fluids is lessened, and the Impetus of the arterial Blood diminished, it will be expedient to exhibit such Medicines as, mixing with the Blood, and being conveyed through the arterial Vessels, may, by their gentle Stimulus, irritate the Fibres of the Vessels to a stronger Contraction, and, by that means, separate and divide the obstructing Molecules, so that they may, without any Difficulty, pass through the narrowest Parts of the Vessels; and, in this Case, the Inflammation will be cured by Resolution. This End is obtained by mild Aromatics infused in large Quantities of Water, to be drank by the Patient; or Infusions, or weak Decoctions, of Sanders, Sassafras, the five aperient Roots, and other Substances of a like Nature, which can never prove injurious in Cases of this Kind.

A thin AROMATIC LIQUOR, to be drank warm.

Take of white, yellow, and red Sanders, each one Ounce; of the Roots of the Carline thistle, one Ounce; of Parsley, and Fen-nel-roots, each three Ounces: Boil for half an Hour, in Water; then add of the Shavings of Sassafras, two Ounces; and of the Leaves of Berony, Rue, Scabious, and Colts-foot, each an Handful: Let them stand in a very hot Digestion, for half an Hour, in a close Vessel; and of the depurated Liquor let the Patient have five Pints, of which let him take two Ounces every Hour, warm.

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But, whilst large Quantities of such Medicines are taken, in order to determine their Efficacy to the Part affected, Fomentations, Frictions, Cuppings, and Scarifications, are to be used. Frictions are, in this Case, highly beneficial, because by the alternate Pressure and Relaxation they, in a great measure, resemble, and supply the Defect of, the Action of the Vessels upon the Fluids. But it is sufficiently obvious, that gentle Frictions are only requisite in this Case, and that they ought never to be used in the inflamed Part, till the Tension and Pain are remov'd by Evacuants, and the Impetus of the Blood either entirely removed, or much diminished, by such Remedies as lessen its Quantity.

2. By drinking other thin and aqueous Liquors warm, and diluting the impacted Matter.

When, by means of Evacuants, a great Part of the Fluids is eliminated, and the oscillatory Motion of the Vessels restor'd, nothing is more conducive to the Cure of an Inflammation by Resolution, than to fill the Vessels with a Fluid capable of passing through the smallest of them. Now Water is possess'd of such a Quality; and the most subtle Part of the human Fluids, which comes under the Cognizance of the Senses, almost, resembles Water in all its Properties. Hence it follows, that Water is capable of passing through the most minute Vessels of the Body. This Fluid, when drank warm, is the most efficacious Remedy in all inflammatory Disorders; for, by the Laws of the Circulation, being convey'd to these Parts of the Body, where the obstructing inflammatory Matter is compacted, it will act upon it, and, by the Concurrence of the Action of the Vessels, attenuate it; and thus, gradually interposing itself betwixt the Molecules of the concentered Matter, it will separate and dilute them. But we have already observed of how great Efficacy Water is in removing Obstructions, by diluting and attenuating. Besides, we must observe, that Water serves as an excellent Vehicle for all the other Remedies calculated for attenuating and resolving inflammatory Concretions. All thin Liquors, therefore, in which Water is most predominant, are highly beneficial in these Cases, such as Whey, Milk and Water, small Ale, Decoctions of Barley and Oats, together with Infusions of Coffee and Tea.

3. By using Attenuants, Resolvents, and things opposite to the Nature of the obstructing Matter, both internally and externally, either in the Form of Decoctions, Baths, Fomentations, Steams, Cataplasms, Plaisters, or Ointments.

Tho' Water is capable of dissolving a great many Concretions, such as those of the saline, saponaceous, mucous, and gelatinous Kinds; yet there are many which cannot be dissolved by Water alone. For this Reason, together with the aqueous Substances, such things are to be taken as are possess'd of a resolvent Quality: Of this Kind those are to be chosen, which are most opposite to the Nature of the obstructing Matter. But, in this Case, the obstructing Matter is red Blood, or a thinner Fluid, remaining stagnant in its proper Vessels, or, by an Error Loci, forced into Vessels by Nature not destined for it. There are present, at the same time, an increased Motion and Heat, which give the Humours of the human Body a great Tendency to Putrefaction: Hence the Medicines intended to attenuate inflammatory Concretions ought, at the same time, greatly to resist Putrefaction. But there are known Medicines, which are, at once, highly resolvent and antiseptic. Honey, by the ancient Physicians so much used in inflammatory Disorders, is remarkably possess'd of these Qualities; for, by the immoderate or long-protracted Use of Honey, the Blood may be so resolved, as to be discharged by Stool, like Water; whilst, at the same time, all the Parts of Vegetables are excellently preserved from Corruption in Honey. *Herodotus*, in *Lib. 1.* informs us, that some of the *Babylonians* were buried in Honey: Sugar, at present so much used, is possess'd of the same Quality. The recent Juices of unripe Fruits, and the highly resolvent Decoctions of Succory, Dandelion, Vipers-grass, and Goats-beard, are of singular Efficacy, in Cases of this Nature. Among the saline Attenuants, Nitre is preferable to the rest; because these are either alkaline, and, by that means, more dispose our Humours to Putrefaction; or, by their Stimulus not to be so easily surmounted by the Force of the Vessels, and Viscera, too much increase the Impetus of the arterial Blood. Of these, various and sufficiently grateful Remedies may be prepared for internal Use: But it will, at the same time, be beneficial to apply externally, to the inflam'd Part, Things of the same Nature, either in the Form of Baths, Fomentations, Steams, or Cataplasms: But these external Medicines seem not only to act so far as the Water, impregnated with attenuating Medicines, insinuating itself into the bibulous Veins of the external Skin, and being mix'd with the Blood, is, by the Laws of Circulation, convey'd through all the Parts of the Body; or so far as by Remedies of a deriving, attractive, or propellent Quality, it is more determin'd to the inflam'd Part; but, also, as these very Remedies, diluted with Water, penetrate directly the Arteries themselves, and may, by this means, be convey'd with their en-

tire Virtues to the obstructed Parts. For that Portion of the Artery, which lies behind the obstructed Part, is empty; there is now no Impetus of the Blood impelled from the Heart, and all the Ramifications arising from such an Artery, beyond the obstructed Part, will, in like manner, be empty: Hence the Fluids applied will enter those Ramifications, with a Force equal to that with which highly minute Tubes attract contiguous Fluids: Whilst, therefore, the internal and external Medicines thus conspire, the stagnant Molecules, lodged in the obstructing Vessels, are, on both Hands, acted on by Attenuants; and if, at the same time, the oscillatory Motions of the Vessels are restor'd, it is sufficiently obvious, that these Molecules are, as it were, triturated with those Remedies, and may, by this means, be resolved, if there are any Hopes of a benign Resolution left. But the Plaisters or Ointments, which, in order to obtain this End, are applied to the inflamed Part, ought not to be too tenacious, or acrimonious; because they would then rather increase the Disorder, as we have already observ'd: Hence such Preparations are only used, as slightly adhere to the Skin, repel and confine the exhaling fine Dew, that thus the Part affected may be, as it were, in a Bath of its own Steam, and that the Virtues of the Medicines applied may more easily insinuate themselves into the relaxed bibulous Veins.

The Lenity of the Humours is procured by drinking aqueous Liquors; by a mild Diet; by Medicines gently diluting and obtunding; or such as are in a singular and specific manner opposite to the prevailing Acrimony.

We have already observed, that a mild Disposition of the Humours is requisite to the Resolution of an Inflammation; for which Reason it is not sufficient to procure a due Fluidity to the obstructing Matter, unless, at the same time, its Lenity is preserv'd, or its Acrimony, if any, corrected. Water, and all aqueous Substances, are principally subservient to this Intention; for nothing is more mild than pure Water, by means of which, the most acrid Substances may be so diluted, as to prove no longer hurtful. The most concentrated Oil of Vitriol, which, like Fire, in a Moment destroys the Parts to which it is applied, may, by the Affusion of a large Quantity of Water, be so weaken'd, that it may be safely used inwardly: Hence, as soon as any acrid Substances are mix'd with the Blood, Thirst forthwith forces the Patient to use large Quantities, either of Water, or some other thin Liquor, till the peccant Matter is expelled, either by Urine, or Sweat. The soundest and most healthy Persons experience this, if at Dinner they eat too large a Quantity of salt Flesh, or any other thing of a like Nature. Besides, thin aqueous Liquors answer all the Intentions of Cure, specified above: A Diet, consisting of the softest frumentaceous Grains, such as Barley, Oats, Buck-wheat, and Rice, as, also, of Milk, and the softest Pot-herbs, is here highly beneficial. *Hippocrates*, as appears from his *Treatise de Victu in Morbis acutis*, supported those labouring under acute Diseases, almost entirely with Barley-potage alone. In Cases of this Nature, the best Medicines are those prepar'd of emollient and gently viscid Substances; such as the Decoctions of Marshmallows, Mallows, Mullein, and other Substances of the like Qualities. Emulsions of farinaceous and somewhat oleous Substances, as, also, the softest expressed Oils, are, likewise, of singular Service in Disorders of this Kind, because they so obtund and sheath up every Degree of Acrimony, as to render it inactive and languid. But because these Oils very soon become rancid, especially in a considerable Heat, Emulsions are generally preferable to them, which contain the obtunding Virtues of the Oils, and, at the same time, are not so subject to degenerate into a rancid Acrimony. But if, before or after the Inflammation, an acrimonious Cacoehymy of the Humours is observed, in this Case those things are proper, which are of a specific Virtue against the known Acrimony: Thus an acid Acrimony is to be treated with Absorbents, or Alkalines; whereas Acids are most proper for correcting a putrid Acrimony.

The obstructing Matter is forced from narrow to wider Parts of the Vessels;

1. By a large Evacuation of the arterial and venous Fluids, by means of Venesection.
2. By a Relaxation of the Fibres.
3. By artificial Frictions.

We have already observed, when enumerating the general Intentions of Cure to be pursued in curing an Inflammation by Resolution; that, if the obstructing Matter cannot be render'd so fluid as to pass thro' the narrow Parts of the Arteries, the only Method remaining is to repel it from these narrow Parts to larger Vessels, where, being carried off by the Circulation of the Blood, it is so divided as afterwards to become capable of passing through those Vessels, in which it naturally ought to flow. This Method may be used in all Inflammations, but principally in those arising from an *Error Loci*; when, for Instance, gross Molecules of the Humours, having enter'd the dilated Orifices of the most minute Vessels, cannot pass through their lumenities;

For if, in such a Case, a red Globule, for Instance, which has enter'd an Artery destin'd for the Serum, can be repel'd, it will again return into the Arteries destin'd for the red Blood, thro' the narrowest Parts of which it is naturally capable of passing; in consequence of which the Inflammation will be resolv'd. But that this Retropulsion may be brought about, the Impetus of the Fluids on the obstructed Part must be removed, or at least very much diminish'd; the Fibres of the obstructed Vessel must be so relax'd as to permit the Regress of the impacted Molecule; and, lastly, this Molecule must be put in Motion, that it may return to larger Parts of the Vessel.

Whilst an Artery, distended by the Force of the Heart, contracts itself, it will, of course, force back its contain'd Liquor towards a wider Part, unless the Impetus of the succeeding Fluid prevents this Effect. When, therefore, the Quantity of this thin Fluid is lessen'd, and its Impetus diminish'd, the Fluid contain'd in the Arteries will move, as it were, from the Apex to the Base of these conical Vessels. Thus, with respect to the Determination of the Motion of the Fluids, the Arteries will, for a time, become Veins. Now Venesection answers both these Intentions; for it lessens the Quantity of the Fluids contain'd in the Vessels, and impairs the Strength of the Heart, by which they are impel'd; for by Venesection we may, at Pleasure, weaken the Strength of a Man, even to Death.

But that these Intentions may be successfully answered, the Evacuation of Blood must be both large and sudden; for, if it was small, the Quantity of Blood would not be sufficiently diminish'd; and, unless it is sudden, the Force of the Heart impelling the Blood is not so much weaken'd: For the strongest Man can hardly bear the free Discharge of two Pounds of Blood, in a full Stream, from a large Wound, without falling into a Deliquium; whereas he can bear the Loss of three times that Quantity, when the Blood is discharg'd, by Drops, from his Nose, or when, after the Drawing of a Tooth, any small Artery discharges Blood, Night and Day, as has often been observ'd to happen. But in neither of these Cases does the Patient fall into a Deliquium.

This is sufficiently confirm'd by what happens in acute inflammatory Disorders: Thus, whilst a Patient, labouring under an acute Pleurisy, cannot draw in the Air by reason of his intense Pain, and is, for that Reason, ready to be suffocated; if a large Orifice is made in one of the Veins of his Arm, the Pain often begins to be diminish'd, and sometimes totally ceases, whilst the Blood is flowing from the Vein, since, by this retrograde Motion of the Humours to larger Vessels, the obstructed Canals are set, as it were, at Liberty. When inflam'd Eyes are become entirely red, by the Blood impel'd into improper Vessels, by liberal Venesection even to a Deliquium, the Redness immediately disappears, since the Blood is repel'd into larger Vessels; for in this retrograde Motion 'tis not necessary the obstructing Molecules should pass through a large Space, before they enter larger Trunks; since, from anatomical Injections, we know, that in very small Interstices there are Anastomoses and Divarications of the Trunks into frequent and numerous Ramifications.

2. The obstructing Molecule remains strongly impacted in the narrow Part of the Vessel. Hence, if the Fibres of this Vessel are rigid, they will so compress this Molecule, as to render it immovable. In such a Case, therefore, it will be expedient to relax the Fibres, after having previously, by Venesection, diminish'd the Impetus of the impel'd Blood; for otherwise the obstructing Molecules would be forced into narrower Parts, because the relax'd Fibres would more easily suffer themselves to be distended, a Circumstance repugnant to this Intention, which requires the Retropulsion, and not the Propulsion, of the obstructing Matter through the relax'd Vessels. But in what manner, and by what Medicines, the Fibres of the human Body may be relax'd, is shewn under the Article FIBRA.

3. When the Impetus of the Fluids, acting upon the obstructing Molecule, is removed, or, at least, much diminished, then the sole Contraction of the Vessel itself repels the obstructing Mass to a wider Part. Every thing, therefore, which increases the Contractility of the Vessels, or conspires to promote the same End, will assist this retrograde Motion. But Friction, by externally compressing the Sides of the Vessels, produces the same Effect which their own Contractility would have done, the Efficacy of which it, also, augments. Hence its Use is sufficiently obvious, especially if the Friction is made from the Extremities of the Vessels to their Bases. How beneficial this is, we learn from Experience. A Pleurisy is much more happily terminated by Venesection, if, at the very time the Blood is discharged, the Side affected is gently rub'd; or if the Patients, by a deep and often repeated Inspiration, or in consequence of a Cough, move the Part affected. For this Reason, by holding warm Wine or Vinegar to the Patient's Nose, we frequently force him to cough contrary to his Inclination, whilst he is afraid to do so for fear of the intense Pain he before felt. When, in Hunting, Animals are hotly pursued, upon taking off their Skin, the Tunica Adiposa, and even the muscular Flesh, are observ'd to be blackish, in consequence of the Blood be-

ing forc'd into improper Vessels. For this Reason, also, Grooms, after Horses have been hard run, rub them carefully over, in order to remove this Accident; for they have learn'd from Experience, that, without this Method, such Animals languish'd, and became good for nothing.

The Antients put Persons, fatigued by long Journeys, into a Bath, and rubbed them; and this Method is used in *Asia* to this very Day.

Hence in all inflammatory Diseases, whether internal or external, we understand what that Resolution is, which is always to be desired, if possible; what a perfect Cure of an Inflammation is; as, also, what a Cure without a Crisis is.

In whatever Part of the Body an Inflammation is, its Definition remains always the same, that is, an Obstruction of the arterial Canals, with a violent Impetus of the impel'd Fluids acting upon the Part obstructed. There will, therefore, be a Resolution of the Inflammation, when the Molecule obstructing the Artery is so attenuated and divided, or the obstructed Vessel so relax'd, that there may be a free Circulation of the Humours through the Vessel before impervious, or, also, when such a Molecule is repel'd to wider Vessels. 'Tis sufficiently obvious, that this Method of curing Inflammations is of all others the best and most safe; because, without any farther Injury of the Parts, it restores a perfect Soundness of the Functions. But it is not always in the Power of the Physician to cure an Inflammation by Resolution; the Measures, however, requisite for this End, we have already specify'd.

As for a perfect Cure; Resolution alone can properly be call'd a perfect Cure of an Inflammation, because it removes it without inducing any other Disorder; but the other Terminations of an Inflammation in a Suppuration, or a Scirrhus, are not perfect Cures, though they remove the Inflammation; for in these Cases the Inflammation terminates in another Disease, which again requires a fresh Cure before perfect Health is restor'd. But when an Inflammation terminates in a Gangrene, or a Sphacelus, it does not tend to the Cure, but to the Death of the Part.

As for a Cure without a Crisis; tho' the Word Crisis has had different Ideas affix'd to it, both by the Antients and Moderns, yet 'tis sufficient here to observe, that an Inflammation is then said to be cured, when the Matter of the Disease, that is, the stagnant Fluid, lodg'd in the arterial Vessels, by the remaining Principle of Life, and the Medicines exhibited, is so disposed as again to flow freely thro' the Vessels, entirely agreeably to the Laws of Health. When, therefore, this Matter of the Disease is so changed as to become moveable, and remains no longer impacted in the narrow Parts of the Vessels, and is, at the same time, destitute of those Conditions, which are requisite for its Circulation with the sound Humours through the Vessels, without any Hindrance of the Functions, 'tis then either eliminated from the Body, or deposited in some particular Parts of it. In this Case the Inflammation is said to be cured by a Crisis, and the Evacuation of the Matter, and its Deposition to other Parts, are said to be critical. When, for Instance, by an *Error Locii*, a red Globule has enter'd a Vessel destin'd for the Serum, and produc'd an Inflammation; if the red Globule is either forced back from this Vessel into the Artery destin'd for the red Blood, or divided into six serous Globules, of which Number, according to *Leeuwenhoek*, it seems to be composed, this Inflammation will be cured without a Crisis; because the Matter of the Disease was so disposed as without any Impediment to be capable of passing through those Vessels, in which, during a State of Health, it ought to flow. But if the Extremity of the obstructed Vessel, together with the obstructing Molecule, are, by the Impetus of the succeeding mild and gentle Fluids, gradually separated, the Obstruction will be removed, but the Continuity of the Vessel being interrupted, the Humours will be discharged. The separated Extremity of the obstructed Vessel, together with its Molecule, can no longer obey the Laws requisite to a State of Health, for which Reason it must be removed, since it is to be considered as an heterogeneous Body. Hence these highly tender Solids, when mix'd with the discharg'd Fluids, by the Heat of the Body, and the smallest Degree of beginning Putrefaction, are chang'd into Pus, which must be evacuated, since it can never acquire the same Nature with the human Fluids. An Inflammation, however, is cured in this manner, but not without a Crisis; because the Matter of the Disease is, by the remaining Principle of Life, separated and eliminated from the Body. Thus it evidently appears how the Resolution of an Inflammation differs from a critical Cure of it. This Doctrine seems to be beautifully confirm'd by a general Axiom of *Galen's*, with respect to the various Terminations of Diseases, delivered in the fourth Chapter of his third Book *de Crisibus*, in the following Words: "*τὰ μὲν γὰρ μυγδαλα κεῖνται πάσι, ὅσα δὲ σμινεῖ, λύεται μόνον*. Violent Diseases are all critically determined, whereas those which are slight are only resolv'd." Thus a violent Inflammation terminates in a Suppuration, or a Gangrene, whereas one that is gentle, may be resolv'd.

I N G

INFLATIO. Inflation. An Emphysema is sometimes thus call'd.

INFRA-SCAPULARIS Musculus. A Name for the SUB-SCAPULARIS; which see.

INFRA-SPINATUS MUSCULUS.

This is a triangular, fleshy, and pretty broad Muscle, in some measure penniform, filling the whole Infra-spinal Cavity or Fossa of the Scapula.

It is fixed in the posterior Half of the Infra-spinal Cavity, or Fossa, and to the corresponding Part of the Basis of the Scapula.

From thence arise a great Number of short fleshy Fibres, which run more or less oblique, and end in a middle tendinous Plane, which terminates a little below the broadest Part of the Spine of the Scapula, under the Root of the Acromium.

Then the fleshy Fibres, leaving the Bone, unite in one fleshy Mass, which, passing under the Acromium, over the Articulation of the Head of the Os Humeri, and adhering to the capsular Ligament, terminates there in a flat broad Tendon, which, adhering, also, to the Capsula, is afterwards inserted in the greater middle Surface of the great Tuberosity of the Head of the Os Humeri. At the Place where the Fibres leave the Infra-spinal Fossa, under the Acromium, there is a great Quantity of fat or adipose Cells, between the Bone and the loose Portion of the fleshy Mass.

This Muscle appears double a little below the Spine, and toward the Basis of the Scapula, because of the middle tendinous Plane. It, also, seems confounded with the Teres Minor, to which it is very closely join'd. Its Tendon is united, on one Side, with that of the Teres Major; and on the other, with that of the Supra-spinatus; and it is cover'd by the posterior Portion of the Deltoides.

The Infra-spinatus, being inserted, by its Tendon, in the middle Surface of the great Tuberosity of the Os Humeri, must perform different Motions, according to the different Situations of that Bone. If it acts, while the Arm hangs down parallel to the Trunk of the Body, it may move the Os Humeri round its Axis from before outward; and, consequently, if the fore Arm be, at the same time, bent, it will turn the Hand from the Body.

If, while the Arm is kept rais'd by the Deltoides, the posterior Portion of that Muscle draws the Arm backward; the Infra-spinatus has the same Use with respect to the orbicular Ligament, as the Supra-spinatus: And, as these two Muscles adhere closely by the Edges of their Tendons, they may, in some measure, co-operate in their Action on that Ligament.

When the Arm, rais'd in the manner already said, is strongly pull'd forward by the Pectoralis Major, a considerable Force is necessary to prevent the Head of the Os Humeri from being thrown backward out of the Glenoid Cavity. The Structure of the Infra-spinatus, and the Number of its Fibres, which is much greater than in the Supra-spinatus, fit it for answering this Purpose; in which it is, also, assisted by the flat, broad, thin Ligament, as mentioned under the Article SCAPULA.

This Muscle may, likewise, assist the Teres Major in great Efforts. *Winslow's Anatomy.*

INFRIGIDANS *Ceratum Galeni.* The same as the CERATUM ROSATUM.

INFUNDIBULUM is a kind of small Conduit, which pierces the Dura Mater upon the Basis of the Skull, and sinks into the Substance of the Glandula Pituitaria. See CEREBRUM. The Infundibulum of the Kidneys is the Pelvis.

INFUSIO. Infusion either implies the Action of infusing any Ingredient, or Ingredients, in a proper Fluid; or the Medicine prepared by this Action. The Method of making Infusions is specified under the Article DECOCCTIO.

INFUSUM. An Infusion. A Medicine prepared by Infusion. Sometimes it imports a Clyster or Injection.

INGA. Ray takes notice of four different Trees, which are call'd by this Name: The first is the

Arbor siliquosa Brasiliensis, foliis pinnatis, costa media membranulis utrinque extantibus alata. Inga Species, Belgis vulgo Lotus. Marcgr.

The second is the

Arbor siliquosa Brasiliensis, siliqua hispida ferruginea, Ceratonia facie. Bern. Inga Opca Piiba Brasiliavorum. Marcgr.

The third is the

Inga alia Species. Marcgr. *Siliquosa Brasiliensis, Inga dicta, siliquis longissimis contortis.*

The fourth is the

Arbor siliquosa Brasiliensis, foliis pinnatis, costa media ad singula Pinnarum poria appendicibus Aurentiarum annulis elatis. Inga Brasiliensis. Marcgr.

I find no medicinal Virtues ascribed to these.

INGERENDA, or INGESTA. All Sorts of Aliment, whether solid or fluid; that is, whatever is taken into the Body for its Nourishment.

INGRAVIDATIO. The same as IMPREGNATIO.

INGREDIENTIA. Ingredients in a Composition.

INGRESSIO, or INGRESSUS. In Medicine it imports either the Ingress of a Physician into the Patient's Chamber;

I N J

or the entering of one Part of the Intestine within another; in the Iliac Passion.

INGUEN. The Groin.

INGUINALIS FASCIA, or SPICA. A Sort of Bandage. See FASCIA,

INGUINALIS HERNIA. See BUBONOCLE, and HERNIA.

INGUINALIS HERBA. See ASTER ATTICUS.

INHAME. See CARA.

INHUMATIO, in Chymistry, is a Method of digesting, by burying the Vessel, containing the Ingredients to be digested; in Horse-dung, or Earth.

INJACULATIO. A Term us'd by *Helmont*, to express a Distemper which consists in a violent spasmodic Pain in the Stomach, and an Immobility of the Body.

INJECTIO. An Injection. There are various Sorts of Injections us'd in Medicine, either for the Mouth, Anus, Urethra, Vagina, or for Wounds, Ulcers, and Sinules, which are taken notice of under the respective Articles to which they belong.

The Moderns have very much improved Anatomy, by injecting certain fluid Substances into the Blood-vessels, and thereby investigating their Course more accurately than could be done without such a Contrivance. *Ruyseh* was the most famous of all others for his artificial Injections, the Method of doing which he kept a very great Secret. But *Rieger* gives the following authentic Account of his Method.

Ruyseh's Method of injecting and preparing Bodies for anatomical Purposes, from his own Manuscript, purchased of him by Peter the Great, and now in the Library of the University of Petersburg.

1. The Hypogastrium is to be laid open; after which two Incisions, about an Inch, or somewhat more, in Length, are to be made in the descending Trunks of the Aorta, and the Vena Cava, in such a manner, that two Tubes may afterwards be introduced.

2. The Subject being placed in cold Water, the Blood is frequently to be express'd from the above-mention'd Incisions, for a Day or two.

3. After this, warm Water is to be poured upon the Subject for four, five, or six Hours, according as it is young, or an Adult.

4. In the mean time the ceraceous Matter, for the Injection, is to be melted in an Earthen Vessel, placed in an Iron Vessel, with some common Water in it.

5. When the Matter is melted, a sufficient Quantity of factitious Cinnabar is to be added to it, stirring them till they are sufficiently incorporated.

6. For the Matter, we are, in the Winter-time, to take simple Suet; but, in the Summer-time, we must add a little white Wax to it.

Some, for this Purpose, use Wax, Turpentine, Rosin, and Oil of Turpentine.

Others use Spirit of Wine saturated with Cinnabar; and, when the Vessels are fill'd with this Preparation, close them with melted Wax, lest the injected Matter should be again discharged.

But, when these Methods are taken, the injected Vessels cannot be separated from the Carcase, as in my Manner.

7. When the Carcase has been thus warm'd for four, five, or six Hours, it is to be taken out of the Vessel in which it lay, and placed upon a Table; after which two Tubes are to be introduc'd into the Artery, in such a Manner, that one of them shall be directed to the superior, and the other to the inferior Parts of the Carcase. The Tubes are, also, to be firmly secured in these Vessels; but we must observe, in fixing them, to comprehend the descending Trunk of the Vena Cava before opened; and, for this Purpose, we must not use a Cord, but a thick and strong Thread.

8. After these Measures are carefully taken, the Carcase is again to be immersed, for a Quarter of an Hour, in the warm Water from which it was taken.

9. As this Water, in the mean time, becomes cold, it is to be pour'd out, and a Supply of sufficiently warm Water is to be added.

10. After this, a Syringe, heated by means of live Coals, is to be applied to the Tubes; and first to that which is superior, and then to the inferior Tube, gently compressing the Matter with the Embolus, till a sufficient Quantity seems to be injected; and, if there should not be a sufficient Quantity of Matter, the Syringe is again to be filled, and the Matter injected in the same manner.

11. When the Vessels are full, their Mouths are to be clos'd; and the Subject, being plac'd in cold Water, is to be perpetually mov'd, till the Matter is cold, lest, in consequence of the Gravity of the Cinnabar, it should be white on one Side, and red on the other.

12. When the Carcase is cold, my Liquor is to be poured upon it, in which it is to remain for some Days, frequently moving it, that the aqueous Parts may be the more perfectly extract'd. Then the Liquor is to be renew'd, and the Carcase kept in an Earthen Vessel.

13. When the Carcase is to be expos'd to View, it is to be take out of the Liquor, wiped gently, and dress'd in Cloaths.

14. The

14. The Liquor is Spirit of Wine, or Malt Spirits, to which, in the Distillation, we may add a Handful of black Pepper, that it may the more powerfully penetrate the muscular Parts.

15. The Malt Spirits, which I now perpetually use, ought not to be too subtil, since when they are so, they cannot be retain'd in Phials; I therefore take the rectified Spirit, and add a third Part of Water to it, which I find to be the best Mixture of all others.

16. For Birds, Fishes, Quadrupeds, and Animalcules, I use common Alcohol, mix'd with pure Water; but this is not to be used for the Preservation of an human Carcase, since, by this means, it would soon lose its Beauty. But the Spirit I use for this Purpose, I myself distil from a tinn'd Alembic, with the Assistance of a slow Fire.

17. The Carcase, when expos'd to View, is not to be long kept out of the Liquor, since by that means it would lose its Beauty.

18. If we intend to dry the Parts of a Carcase, we are neither to expose them to the Fire, nor the Rays of the Sun, but to a dry Air; otherwise the Matter injected would make its Escape.

19. Nothing is more difficult, than to dry and indurate Subjects thus prepar'd, by reason of the Mouldiness with which they are continually cover'd. A Pencil, therefore, dip't in the Liquor, or saturated with Alcohol, is to be used, by which the Mouldiness is immediately remov'd; and this Method is to be persisted in, till the Discharge of the Mouldiness ceases.

20. Dry'd Subjects are, with the greatest Care, to be preserv'd from such Animals as prey upon fleshy or membranous Substances.

21. Among Animalcules, the most offensive are, a small Species of Scarabæus, especially in the Months of *May, June, and July*; but they are rarely to be found in the Winter-time. They, also, produce a kind of hairy Animalcule, which is no less offensive.

22. If, by chance, a Subject should be infested with these Insects, I cover it over with Alcohol, which immediately kills them; after which, I again expose it to the Air, in order to dry it.

23. For the better Preservation of Subjects, I sometimes cover them over with a Vernish prepared of Gum-copal, and Oil of Spike.

24. When we intend to render the most minute Vessels visible, the Carcase is first to be moisten'd with Oil of Spike, or Turpentine; then, taking care that no Object intercept the full Access of the Rays of the Sun, we are to use good Microscopes.

INIMBAY. A Name for the BONDUCH; which see.

INION, *ινιον*. The Occiput; or, according to others, the posterior Part of the Neck. *Blancard* says, it is the Beginning of the Spinal Marrow.

INNOMINATA OSSA.

The Pelvis is the third and lowest Part of the Trunk, consisting principally of two large Pieces, called *Ossa Innominata*, which, being united anteriorly by a cartilaginous Symphysis, and posteriorly to the two Sides of the Os Sacrum, represent a kind of Basin. When considered separately, they have no regular Figure, being of different Breadths in different Parts, unequally convex on the Outside, and unequally concave on the Inside. Each Bone is but one Piece in adult Subjects, but, in Children, it consists of three Pieces joined together by a Cartilage, which afterwards perfectly ossifies, leaving, commonly, no Vestige of the first Division. Anatomists, however, consider in it, even in Adults, three different Portions, and distinguish them by different Names, as if they were three distinct Bones. The largest of the three is superior and posterior, called Os Ilium; the second, inferior, called Os Ischium; and the third and smallest, anterior, called Os Pubis.

It is necessary to observe, that, in the entire Bone, there are several common Parts, which belong to more Portions than one; as a deep cartilaginous cotyloide Cavity, called in *Latin*, *Acetabulum*; formed by all the three Portions: A large Opening, called *Foramen Ovale*, formed by the Os Ischium, and Os Pubis: A large posterior Notch or Sinus, called the Ischiatic Notch, formed by the Os Ilium and Os Ischium: An oblique Eminence, or Protuberance above the Acetabulum, towards the Foramen Ovale, made by the Os Ilium and Os Pubis. To these may be added, a Ridge on the Inside of the Pelvis, which divides the upper wide Part from the Bottom, to which alone the Antients gave the Name of Pelvis.

The Os Ilium was so named by the Antients, because it supports the Parts called by them *Ilia*. It is flat, very broad, unequally convex and concave, partly round, and partly of an irregular square Figure. It is commodiously divided into the Crista, Basis, anterior and posterior Edge, and two Sides, one external, and the other internal. The Crista is the upper Part, being a pretty thick, arched Border, the Circumference of which is little more than the Quadrant of a Circle. The anterior and middle Part is convex outward; the posterior Part a little convex inward. We distinguish in it two Labia, and a middle Space between them. It is originally an Epiphysis, of which we sometimes see plain Marks in a very advanced Age. The posterior Portion of the Crista, which is convex inward, is much thicker than the anterior; and, for that Reason, might be called the Tu-

berculum of the Crista. The whole Crista appears to be crufted over with a Cartilage, which, in Reality, is no more than the dry'd tendinous Insertions of the Muscles.

The anterior Edge of the Os Ilium has two Eminences, or Tubercles, called the anterior Spines; one superior, the other inferior; and likewise two Notches, one between the Spines, the other below the inferior Spine. The posterior Edge is shorter and thicker than the anterior. It terminates, likewise, in two Eminences, or Spines, between which there is a considerable Notch. The Basis, or inferior Part of this Bone, is the thickest and narrowest. It forms, anteriorly, a Portion of the Acetabulum; and, posteriorly, almost all the Ischiatic Sinus. The Outside is convex on the fore Part, and concave on the back Part. We observe on it the Remains of a long semicircular Line, which reaches from the upper anterior Spine to the great Ischiatic Sinus, being a muscular Mark. Above and behind this Semicircle, there are several other Impressions, and muscular Marks. A little above the Edge of the Acetabulum, we see, likewise, many Inequalities, which surround Part of that Edge in a semicircular Form, being a Collection of muscular and ligamentary Marks. The Inside is unequally concave, and has several Inequalities toward the back Part, the principal of which is that large cartilaginous Surface of the Figure of an S, or of a Bird's Head, which answers to the lateral Surface of the Os Sacrum, with which it is connected by a cartilaginous Symphysis. The other Inequalities are much of the same Kind with those in the lateral Part of the Os Sacrum, with which they form several rough and irregular Cavities. From the upper Part of the cartilaginous Surface, or Symphysis, all the Way to the oblique Eminence, runs a prominent Line, which bounds the Concavity of the Inside of this Bone, and distinguishes the Margin of the Pelvis from the Bottom.

The Os Ischium is the lowest Portion of the Os Innominatum, as well as of the whole Trunk. It is divided into the Body, Tuberosity, and Ramus, or Branch. The Body of the Os Ischium forms the lowest and greatest Part of the Acetabulum, and sends out an Apophysis backward, called the Spine of the Ischium. The Tuberosity is very thick, unequal, and turned downward; and it is on this Part, that the whole Body rests when we sit. It appears cartilaginous, because of the dry'd and hardened Remains of the Tendons. The whole convex Part of it is originally an Epiphysis, of which the Marks are obliterated sooner in some Subjects, than in others. Three muscular Impressions may be distinguished in it. The Branch of the Ischium is a kind of small, flat, thin Production, or Apophysis, which ascends forward from the Curvature of the Tuberosity to the Os Pubis; and it is often cover'd, in Part, by a Continuation of the Epiphysis of the Tuberosity. These three Parts of the Ischium, taken together, form a large Opening, which makes the greatest Part of the Foramen Ovale. Three other Notches are remarkable upon this Bone; one posterior between the Tuberosity and the Spine, for the Passage of the internal Obturator Muscle, which is a little cartilaginous, and divided into three or four small superficial Chanels; one lateral between the Tuberosity and the Acetabulum, for the Passage of the external Obturator Muscle; and one anterior at the Edge of the Acetabulum, for Ligaments.

The Os Pubis is the least of the three Portions of the Os Innominatum. The two together form the fore Part of the Pelvis; and in each we may distinguish the Body, Angle, and Branch. The Body of the Os Pubis is its upper Part, situated transversely before the inferior Part of the Os Ilium. Its posterior Extremity is very thick, and by its Union with the Os Ilium forms the oblique Eminence which distinguishes these two Portions of the *Ossa Innominata*. It, likewise, contributes to the Formation of the Coryloide Cavity. Its anterior Extremity ends in a small Eminence, or Tuberosity, called the Spine of the Os Pubis, which is sometimes double. The upper Edge has on its inner Part an oblique Ridge, which may be called the Crista of the Os Pubis, and is continuous with that Ridge which distinguishes the Margin, and the Bottom of the Pelvis. Before this Crista is a broad, oblong, oblique Slope. The lower Edge is obliquely notch'd, and forms the upper Part of the Foramen Ovale. The Angle of the Os Pubis is its anterior Portion, and makes Part of that Connection, called the Symphysis of the *Ossa Pubis*. This Portion is flat, and not very thick; and, in some Subjects, toward the upper Part of the fore Side, near the angular Curvature, it has an Eminence which increases the Size and Extent of the Spine already mentioned. The two *Ossa Pubis*, connected together by this Portion, form on the fore Side an unequal Convexity, but, on the back Side, a pretty even Concavity. The Branch of the Os Pubis is a flat thin Apophysis, which, running downward, unites with the Branch of the Ischium, by a cartilaginous Symphysis, of which only some Marks remain in Adults. It completes the Formation of the Foramen Ovale. The Branches of the two *Ossa Pubis* form, on the fore Side, a pointed Arch, which, in the natural State, is much more round.

Besides what has been said of the Acetabulum in general, see other Particulars, under the Article ACETABULUM.

The Substance of all the three Portions of the *Ossa Innominata* is mostly spongy, except in the Middle of the Os Ilium, where

where the two Tables, uniting, render the Bone transparent; and the same is to be said of the Acetabulum.

The *Ossa Innominata* are join'd to the *Os Sacrum*, and to each other, by a cartilaginous Symphysis. They are articulated with the *Os Femoris*, by Enarthrosis.

The *Ossa Innominata*, together with the *Os Sacrum*, form the Pelvis, which is Part of the Cavity of the Abdomen, and supports several Viscera, especially those which are the common Sewers of the Urine, and gross Excrements, and those by which the two Sexes are distinguish'd. The Pelvis is larger in Women than in Men; the *Ossa Ilium* and *Ischium* are wider. The Arch form'd by the Branches of the *Ossa Pubis* is also greatest in Females.

Moreover, these Bones, together with the *Os Sacrum*, support the whole Trunk, and all the Parts belonging to it, and, also, the lower Extremities. In a Word, they are the Basis of the whole Body of Man, and the general Centre of all its Motions, when sitting, standing, or lying.

The Cartilages of the *Ossa Innominata* are not so numerous as one might imagine on examining the Skeleton only. We are subject to think, we see the dry'd Remains of Cartilages on the Crista of the *Os Ilium*, on the Tuberosity of the *Os Ischium*, and on the Grooves and Notches, which give Passage to the Tendons of Muscles: But none of these Incrustations are true Cartilages, being, for the most part, tendinous, aponeurotic, or ligamentary; which, being dry'd, look more like Cartilages, than the true Cartilages themselves. The Crust, which covers the Crista of the *Os Ilium*, is principally tendinous, and a small Part of it aponeurotic in Adults; but in Children, and very aged Persons, it appears cartilaginous. In Children, the Parts which are not completely ossified, are easily taken for true Cartilages; and, in Old-age, the Tendons are often hardened to so great a Degree, as to have the very same Appearance. The Subilance which covers the Tuberosity of the *Ischium*, is almost entirely tendinous; and that which lines the Grooves and Notches of the Tendons is principally ligamentary.

The true Cartilages of the *Ossa Innominata*, in Adults, are five in Number, three common, and two proper. The first and principal common Cartilage is that which makes the Symphysis of the *Ossa Pubis*. It reaches from the Interval, between the Spines of these two Bones, all the Way to the Angle formed by the two Branches, where they begin to separate. It is something thicker or broader at its upper Part, than for a considerable Space lower down; but the inferior Part is much the broader. It fills the Angle already mentioned, and forms a kind of Arch, which is more considerable in Women, than in Men. The two other common Cartilages join the *Os Ilium* to the *Os Sacrum*, but are thinner than that of the *Os Pubis*.

The proper Cartilages are those which line the *Cotyloide Cavities*. In the Edge of each of these Cartilages, there is a Notch, or Opening between the anterior and inferior Parts; and, in the Cavity itself, there is a broad unequal shallow Depression reaching from the Notch beyond the Middle of the Cavity. All the rest of the Surface of the Acetabulum is covered with a white, shining, smooth Cartilage, which terminates precisely at the Edge of the Cavity. The Circumference of the Acetabulum has, besides, a Border of a particular Kind, the Substance of which is neither wholly cartilaginous, nor wholly ligamentary; but I chuse to place it among the Ligaments.

The Ligaments of the *Ossa Innominata* are of two Kinds, common and proper. The common Ligaments go between these and the neighbouring Bones, which are numerous. One superior Ligament, inserted by one End in the internal Labium of the posterior Part of the Crista of the *Os Ilium*, about an Inch above the Angle of that Crista. It is about an Inch in Breadth, and is fastened by its other Extremity in the whole inferior Edge of the transverse Apophysis of the last Vertebra of the Loins.

One inferior and anterior, fixed by one End in the inner Side of the Angle of the Crista of the *Os Ilium*, and by the other in the superior and anterior Part of the first false transverse Apophysis of the *Os Sacrum*. In this Ligament there are transverse Openings, which make it appear more or less complex.

Several inferior and posterior, fixed by one End along the internal Labium of the Tuberosity of the Crista of the *Os Ilium*; and, by the other, in the first three false transverse Apophyses; and from thence, extending laterally over the Marks of the false oblique Apophysis of the *Os Sacrum*.

To these must be added, the Ligaments by which the *Os Femoris* is joined to the *Os Innominatum*, which are described among the other Ligaments of the Thigh.

The principal proper Ligaments are four; two called *Sacro-sciatic*, one broad and external, the other small and internal, one *Obturator*, and one *Inguinal*.

The broad *Sacro-sciatic*, or internal sciatic Ligament, is slightly fasten'd to the Inside of the Tuberosity of the Crista of the *Os Ilium*, covers exteriorly the two posterior Spines of that Bone, and continues to be inserted along the anterior and exterior Edges of the false transverse Apophysis of the *Os Sacrum*. From thence this Ligament, diminishing in Breadth, descends obliquely towards the Tube-

rosity of the *Ischium*, and is inserted immediately below the Sinus, which is between the Tuberosity and the sciatic Spine. This Insertion is afterwards continued over the whole internal Labium of the inferior Portion of the *Os Ischium*, and of the Branches of the Bone, and the inferior Portion of the Branches of the neighbouring *Os Pubis*. Thro' all this latter Course of its Insertion, that is, after its Arrival at the Tuberosity of the *Ischium*, it produces a kind of ligamentary Falx, one Edge of which is fixed to the Bones, the other lies loose; and, by this Situation of the Falx, it forms, together with the Bones, a kind of deep Chancel, or Groove.

The small *Sacro-sciatic*, or internal sciatic Ligament adheres closely to the Inside of the posterior Portion of the former. It is fixed interiorly to the Edge of the inferior Part of the fourth false transverse Apophysis of the *Os Sacrum*, and from thence all the Way to the upper Part of the *Os Coccygis*. From this Insertion it runs up a little obliquely to the Spine of the *Ischium*, and in the sharp Point, and upper Part, in which it is fixed. During this Course, it crosses the broad Ligament, being closely united to the Insides thereof, and loses but little of its Breadth. By these two Ligaments, two distinct Openings are form'd, a large one, with the superior sciatic Sinus; and a small one, with the inferior sciatic Notch.

The *Obturator Ligament* fills up all the great Foramen Ovale, except the oblique Notch, at its upper Part. It is fastened, precisely, to the Edge of the Circumference of that Hole, from the anterior Part of the oblique Notch, all the Way to the Symphysis, between the *Os Pubis* and the *Os Ischium*.

From thence, to the posterior Part of the inferior Notch, it is fixed to the internal Labium of the Edge of the Circumference, forming a kind of small Chancel with the external Labium; and afterwards it is fixed to the common Edge of the Foramen Ovale, and *Cotyloide Notch*, or Opening.

By this Disposition, an Opening is left between this Ligament and the superior oblique Notch; and, immediately below this common Opening, there are two small Perforations in the Ligament alone.

On the Inside of the upper and anterior Part of the *Os Pubis*, there is a transverse Ligament, resembling the Shape of a Penthouse, fix'd by its upper Part to the *Os Pubis*, from the oblique Notch of the Foramen Ovale, all the Way to the lower Part of the Symphysis, at a small Distance from the Circumference of the last-mention'd Hole.

This transverse Ligament is about half an Inch in Breadth in an adult Body; and posteriorly, below the superior oblique Notch of the Foramen Ovale, it joins the *Obturator Ligament*, by means of a particular Fold; and, by parting from it afterwards, a kind of deep narrow Groove is form'd between them, the transverse Ligament being, at this Place, supported by ligamentary Frana of different Sizes.

The *inguinal Ligament*, call'd, from the Discoverer, *Ligamentum Fallopii*, is an aponeurotic, or ligamentary Band, fasten'd by one End to the anterior and superior Spine of the *Os Ilium*; and, by the other, to the Spine of the *Os Pubis*. The middle Portion of it is very narrow, but it expands considerably toward both Extremities. It is closely join'd to the Muscles of the Abdomen, and to the aponeurotic Fascia of the Thigh. It seems to be often wanting.

Besides these Ligaments, peculiar to each *Os Innominatum*, there is another small, flat, and very strong Ligament, which runs transversely between the two Angles of the *Cotyloide Notch*, and may be term'd the proper, or transverse Ligament thereof.

The elastic Border of the *Cotyloide Cavity* may, also, be reckoned among the Ligaments. It is a sort of additional Piece strongly united to the Edge of the Cavity, but easily yields both Ways to any Pressure. It may be stretched out by pulling, and recovers and contracts again, when that Force is removed. It is of a very singular Texture, being composed of elastic Fibres, interwoven together thro' its whole Circumference; and which, in several Places, are, by degrees, inclined toward the bony Edge of the Cavity. It makes an entire Circle, and where it passes over the Notch, the transverse Ligament before-mention'd serves to support it, as the bony Edge of the Cavity does thro' all the rest of its Circumference.

One of the two Ligaments, by which the *Os Femoris* is connected to the *Os Innominatum*, surrounds the whole Articulation, the other is contained therein. The first is called the orbicular Ligament, the other, very improperly, the round Ligament.

The orbicular Ligament is very strong, and unequally thick; It surrounds the whole convex Circumference of the Supercilium of the *Cotyloide Cavity*, to which it is strongly fix'd for the Breadth of near a quarter of an Inch, from the sharp Edge outward, and from thence seems to send off a ligamentary Aponeurosis.

Its Insertion at the sharp Edge of the *Cotyloide Cavity* joins that of the elastic Border; the rest of the Ligament is distinct from the Border, and only touches it quite round; and where it passes over the Notch, it is fix'd in the transverse Ligament.

The Ligament which lies in the Joint is not round, as its common Name would make us believe. It is a flat Cord, broad at one End, and narrow at the other, and therefore, in some measure, of a triangular Shape. By its narrow End, it is inserted at the two Angles of the Norch of the Coryloide Cavity; and, by the other, in the Os Femoris: This broad End may be reckon'd the Basis of the Ligament; and from thence arise some distinct ligamentary Filaments, which are inserted at different Distances, in the Circumference of the rough Impression of the Coryloide Cavity.

There is nothing in the Periosteum of this Bone different from that which has been said above, except what relates to the Insertion of several Muscles.

The rough unequal Depression, at the Bottom of the Coryloide Cavity, is filled by a broad flat mucilaginous Gland, border'd with a fatty Substance, and covered by a fine Membrane, through which a mucilaginous Liquor passes, to moisten the Joint, and facilitate its Motions. This Membrane rises above the Gland, and gives a sort of Covering or Coat to the Liquor contain'd in the Joint. The Blood-vessels of this Gland pass between the Bottom of the Coryloide Notch, and the transverse Ligament thereof.

As these Bones have no internal Cavity, and their Substance being cellulous or cavernous, they contain no medullary Mass. The small Cells of their cavernous Substance contain a medullary Juice, which distils incessantly through the Membrane with which they are all lined.

The Blood-vessels pass principally through the small Holes, in both convex and concave Surfaces of the Bones; and, ramifying upon the bony Cells, they end in a great Number of small capillary Tubes, which make the medullary Juice appear red. *Winslow's Anatomy.*

INOCULATIO. See VARIOLÆ.

INOPINUS, *μαχαλογος*, sudden, unforeseen, is spoken of such unexpected Accidents, or Events, as happen either naturally or preternaturally in Diseases, and seem to indicate some Alteration. But when the Sick find themselves, in any measure, relieved or depressed beyond Reason or Expectation, we are not much to fear the one, nor trust the other, as we are taught by *Hippocrates*, 2 *Aph.* 27.

INOSCUATIO, *ἀνασώμασις*. See ANASTOMOSIS.

INPINGUEDO *Parri*. The Herb *Coffus*. *Castellus*.

INQUIETUDO, *ἀλυσμός*, Restlessness. See ALYSMUS.

INSANIA. Madness. See DELIRIUM, and MANIA.

INSECTUM, *ἐντομον*, an Insect, so called, from its being mark'd or distinguish'd by Variety of Parts separated, as it were, by Incisions. The several Species of Insects, useful in Medicine, see under their proper Articles.

INSERTIO, Insertion, in Anatomy, is the Insinuation and close Conjunction of the Vessels, Fibres, Muscles, or Membranes, with some other Part.

INSESSIO, *ἐνέσσω*, *Ionice*, *ἐνέδρη*, Infession; see ENEDRE. It signifies, also, the same as ENCATHISMA, or SEMICUPIUM; which see.

INSESSUS. The same as SEMICUPIUM; which see.

INSENTIA, *ἐπιστάσις*. See EPISTASIS.

INSIDIANS, *λοχάν*, insidious, latent, is an Epithet of Diseases, which betray no evident Symptom, but are ready, on any Provocation, to break forth, as it were, by Surprise, upon the Patient. *Castellus*.

INSIPIDUS, *ἀποιος*. See APOEUM.

INSIPIENTIA. See DELIRIUM.

INSOLATIO. An Insolation, or exposing to the Rays of the Sun. *BLANCARD*.

INSOLATUS. The same as EILETHIERES, which see.

INSOMNIA, *Insomnitas*, *Insomneitas*, Want of Sleep.

INSOMNIUM, *ἐνύπριον*, a Dream.

Something may be learnt concerning the present State of the Body, and Prognostics may be drawn from Dreams; for if, these are different from what may be expected from the Business or Occupation of the Day, they assure us of some Disorder in the Body. Dreams of Fire indicate a Redundance of yellow Bile. To see a Smoke, or a thick Fog, shews, that black Bile abounds in the Body. To dream you see a Fall of Rain, or Snow, or Hail, or a Representation of Ice, there is a Redundance of Phlegm in the internal Parts. He who fancies himself conversant among Stinks, may be assured, that he harbours some purrid Humour within his Body. To have red things represented in Sleep, or to fancy yourself to have a Comb like a Cock, is a Sign, that Blood abounds within. The Moon, appearing in a Dream, signifies Affections of the Cavities in the middle Part of the Body; the Sun those of the middle Parts, and the Stars those which affect the Ambit, or exterior Surface. If any one, therefore, of these Luminaries be lessen'd, or obscured, or stoppt in its Course, the Part signify'd by it labours under some Disorder, which is but slight, if what diminishes the Light be only Air, or a Mist; but more considerable, if Water; and if it appears to be overpower'd by the Interposition of the Elements, to such a Degree as to seem quite extinguish'd, the Patient, it is to be feared, will sink under the Distemper; but if, surmount-

ing all Obstacles, the Luminaries begin to shine out, and appear splendid, the Sick is to be judg'd in a hopeful State. If the Luminaries seem to hurry along with surprising Swiftmess, they indicate Madness; if they appear to descend in the West, or to be precipitated into the Sea, or to the Earth, it, also, signifies Diseases. A troubled Sea indicates an Affection of the Belly; and to see the Earth overflown with Water, is not good; for it shews a humid Disorder, and much more, if one fancies himself immerg'd in a Pond or River. It is worse to see the Earth dry'd and burnt up with the Sun; for it is an Indication of great Driness. If any one fancies, in his Sleep, that he greedily longs after Meat or Drink, it signifies, that he wants Aliment, or Drinking. To fancy that you drink pure Water, is good; to take other Liquors, is bad. The Appearance of Monsters, or armed Enemies, occasioning a Fright in Sleep, shews Sickness, and Danger of Madness. To fancy yourself precipitated from some very high Place, threatens a Vertigo, Epilepsy, or Apoplexy, especially if the Head, at the same time, be burden'd with Humours. *Lomii Med. Obs.*

The foregoing Observations of *Lomius*, on Dreams, are all, or most of them, taken from *Hippocrates*, who has written a Book expressly on the Subject.

INSPIRATIO. Inspiration. That Part of Respiration, by which the Air is drawn into the Lungs.

INSPISSATIO. Inspissation, or Condensation.

INSTILLATIO imports, sometimes, the same as EMBROCATIO.

INSTINCTUS. Instinct. That Principle, in brute Animals, which enables them to make their Option of what is most beneficial to them. This Instinct frequently directs them to Medicines well adapted to the Cure of their Diseases.

INSTITA. A Fillet. It, also, signifies a flat Worm of the Intestines.

INSUFFLATIO. Insufflation; the blowing into any Cavity, in order thereby to convey any thing medicinal to a Part affected.

INSULTUS. The first Invasion, or Access of a Paroxysm, or Fit.

INTERGASTRUM. A Term used by *Paracelsus*, importing the Decussation of the optic Nerves.

INTEGUMENTA. The Integuments. The *Cuticula*, *Cutis*, and *Membrana Cellulosa*, are generally understood by the Integuments.

INTEMPERANTIA. Intemperance, with respect to Meat and Drink. But it, also, signifies the same as DYSCRASIA.

INTEMPERIES. The same as DYSCRASIA.

INTENTIO. Intention. This imports either Extension, or Indication.

INTERCEPTIO. The same as APOLEPSIS; which see.

INTERCIDENS Pulsus. A sort of Pulse is thus called; when betwixt two regular Pulsations, a third Stroke is perceiv'd. It seems to be much the same as the DICROTUS.

INTERCISIO. The same as DIACOPE; which see.

INTERCOSTALES MUSCULI.

The intercostal Muscles are thin fleshy Planes, lying in the Interstices, between the Ribs, their Fibres running obliquely from one Rib to another. In each Interstice lie two Planes, an external and an internal, closely joined together, nothing but a thin, fine, cellular, membranous Web coming between them.

According to this natural Division, there must be forty-four intercostal Muscles, in the twenty-two Interstices left between the twenty-four Ribs; and of these there are eleven external, and eleven internal, on each Side. The Fibres of the external Intercostals run down from behind, forward; and those of the internal Intercostals, from before, backward; so that the Fibres of these two Series of Muscles cross each other.

The external Intercostals extend commonly from the Vertebrae to the Extremity of the upper Labium of the bony Portion of each Rib, and go no further. The internal begin forward, near the Sternum; and end backward, at the Angle of each Rib.

Therefore, between these Angles and the Cartilages, these fleshy Planes are double, the Fibres, by their opposite Directions, representing this kind of Figure X. But from the Vertebrae to the bony Angles, and in the Interstices between the cartilaginous Portions, the Plane is single, being that of the external Muscles, backward, and of the internal, forward.

The Fibres of the external Intercostals are very oblique, near the Vertebrae; but this Obliquity decreases insensibly towards the anterior Extremities of their Ribs. Their Insertions begin at the Ligaments, by which the Ribs are fastened to the transverse Apophyses. They are a little tendinous, and run a small Space beyond the Edge, on the Outside of each Rib.

The Fibres of the internal Intercostals are, in general, shorter and less oblique than the former. They fill almost intirely the Interstices between the cartilaginous Portions, and they are covered on the Outside by a ligamentary Membrane, the Fibres of which, running in an opposite Direction to those of the Muscles, have been mistaken for Continuations of the external Intercostals, over which this Membrane is likewise spread, only a little diminished in Thickness.

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Any Portion of the Breast of an Animal may be boiled so much as that the Flesh shall easily part from the Bones, and the Ribs may be drawn out, disordering neither the Muscles nor Membranes. But we are not from thence to conclude, that all the Intercostals on one Side of the Thorax make but one Muscle; because, by the same Way of reasoning, it might be proved, that all the Muscles which immediately surround the Os Femoris, are but one; since, by a like Experiment, they, together with the Periosteum, may be entirely separated from the Bone, without breaking their Fibres.

The posterior Fibres of the external Intercostals are fixed, by their upper Extremities, so near the Articulation of the Ribs with the Vertebrae, that they cannot depress that Rib in which they are so inserted; whereas the Insertions of their lower Extremities in the following Rib being at a greater Distance from the Articulation, they may move that Rib upwards: And from thence it follows, that all the remaining Part of each external Intercostal, which terminates at the bony Extremity of each Rib, can only serve to raise the lower Rib toward the upper.

The anterior Fibres of the internal Intercostals are so near the Articulation of the Ribs with the Sternum, that they cannot depress that Cartilage in which each of them is inserted; whereas the inferior Insertions of these Fibres being at a greater Distance from the Articulation, they are in a Condition to raise the Cartilages in which they are so inserted. From whence it follows, that all the internal intercostal Muscles have the same Use with the external, and that they can have no other.

The Portions which lie between the two Extremities of the Ribs, serve to increase the Force of the same uniform Action. And the first Rib, being immoveable, serves for a fixed Point for the Motions of all the other Ribs; and each Rib in particular serves for a fixed Point for the Motion of that below it.

The Supra-costales are powerful Assistants to the Intercostals in their common Action, and are therefore very justly termed Levatores Costarum. *Winslow's Anatomy.*

INTERCURRENS FEBRIS. An Intercurrent Fever.

Stationary Fevers are such as arise from some particular Constitution of a particular Year, not yet sufficiently known. Every one of these prevails in its Order, and rages with great Violence; having, as it were, the Ascendant over all the rest, during that continued Course of Years. But there are, also, other continued Fevers, which, tho' they sometimes rage less, and, at other times, more severely; yet, because they are mixed with all kinds of stationary Fevers, and likewise with each other indifferently, in the same Year, I conceive they should be called *Intercurrents*: These are, the Scarlet Fever, Pleurisy, Bastard Peripneumony, Rheumatism, Erylipelatous Fever, the Quinsey, and, perhaps, some others.

But as all these Diseases are, during their State, or at least were, accompanied with a Fever, till it went off, the febrile Matter being thrown upon some particular Part, according to the Nature of the Distemper, I question not, that the Fever is to be accounted the primary Disease; and that the other Disorders, whence the Names are derived, are Symptoms which principally regard either the peculiar Manner of the Crisis, or the Part most affected.

It must be observ'd, that, as the stationary Fevers prevailed more or less epidemically, according as they were favoured by the Constitution of Years, resulting from a secret and inexplicable Temperature of the Air; so, likewise, did these Intercurrents sometimes, but less frequently. For, tho' they generally arise from some particular Disorder of particular Bodies, whereby the Blood and Juices are vitiated; yet sometimes they proceed, mediately, from some general Cause in the Air, which, by its manifest Qualities, so disposes the human Body, as to occasion certain Faults of the Blood and Juices, which prove the immediate Causes of such epidemic Intercurrents: Thus, when a sharp Frost of long Continuance, late in the Spring, is suddenly succeeded by warmer Weather, Pleurisies, Quinsies, and the like Diseases, usually arise, whatever be the general Constitution of the Year. And because these Diseases, which happen indifferently in all Years, sometimes rage as epidemically as those which only happen in a certain successive Course of Years, we chuse to call them *Intercurrents*, in order to distinguish them.

Notwithstanding the considerable Difference between these two Kinds of Fevers, with respect to the Cause proceeding from the Air; yet they frequently agree in other external and procatastic Causes. For, not to mention Infection, which sometimes communicates stationary Fevers; and Surfeits, which give Rise to both stationary and Intercurrent Fevers, the manifest external Cause of the greatest Part of Fevers is to be ascribed, either, 1. To leaving off Cloaths too early in the Spring; or, 2. To imprudently exposing the Body to the Cold, after being heated with violent Exercise: Whence the Pores being suddenly closed, and the perspirable Matter retain'd in the Body, such a particular kind of Fever is raised in the Blood, as the then general Constitution, or the particular Depravity of the Juices, is most inclined to produce. And indeed I am of Opinion, that more have been destroy'd by this means, than by the Plague, Sword, or Famine together; for, if a Physician examines his Patient

strictly concerning the first Occasion of the Disease, he will generally find it to proceed from one of these Causes; provided it is one of those acute Diseases we have treated of above.

But it must here be carefully remarked, that tho' the Diseases I now treat of, under the Title of *Intercurrents*, were most, if not all of them, essential Diseases; yet, frequently, certain Disorders happen in stationary Fevers, resembling these Intercurrents as to the Phenomena, and likewise characterized by the same Name, which, however, are manifest Symptoms of those Fevers. In this Case, they are not to be treated by the Method which is to be used when they are essential Diseases; but rather by that which the Fever requires, whereof they are now Symptoms, which Method is only to be slightly adapted to their particular Cure. Great Attention must be had to the Fever of the Year, and to find out the Method whereby it may be easiest conquer'd, whether by Bleeding, Sweating, or any other Procedure. Should it be objected, that the Disorders under Consideration, which I term essential, are, in reality, only Symptoms. I reply, that perhaps they may be Symptoms, with respect to the Fever to which they properly belong; but they are at least Symptoms of Fevers, which always necessarily produce them. Thus, in an essential Pleurisy, the Fever is of such a Nature as always to deposite the morbid Matter upon the Pleura; in an essential Quinsey, of such a Nature as to throw the morbid Matter upon the Throat; and so in the rest. But, when any of the above-mentioned Diseases succeeds a Fever, which belongs to a particular Constitution of Years, and is dependent thereupon, it is then produced accidentally only, and no way necessarily; and, therefore, there is a remarkable Difference between them.

But, in order to distinguish rightly between essential and mere symptomatical Disorders, it is of Moment to consider, that the same Symptoms, which accompany any particular stationary Fever at the Beginning, will likewise happen at the same time, in a Pleurisy or Quinsey, when these are only accidental Symptoms of such a Fever. We had a Proof of this in the symptomatic Pleurisy, succeeding the Fever, which prevailed in the Winter of 1675. For all that were seized with the Pleurisy were afflicted, in the Beginning, with a Pain in the Head, Back, and Limbs; which were the most certain and common Symptoms of all those Fevers which preceded the Pleurisy, and continued after that Disease went off: Whereas, when either of these Intercurrents is the essential Disease, it attacks in the same manner in all Years indifferently, having nothing in common with the then prevailing stationary Fever. Besides, the Symptoms, which afterwards arise, are more apparent, as not being concealed and perplexed, by a Mixture of other Phenomena of a different Nature, and belonging to another Fever. Again, the Time of the Year wherein the greater Part of essential Intercurrents usually make their Appearance, frequently points out the Kind of Disorders whereto they should be refer'd: But, lastly, he is best qualified to discover the diagnostic Signs, both of these, and all other Diseases, who, by daily and diligent Observation, hath searched so intimately into their Phenomena, as, at first Sight, to be able to distinguish the Genus; though, perhaps, the characteristic Differences of some of them may be so very subtle, that he cannot express them by Words to another.

But as these different Species of Fevers, so far as I can learn by carefully considering their Concomitants, and the Method of Cure, proceed from an Inflammation of the Blood peculiar to every Disease, I place the principal Part of the Cure in cooling the Blood. In the mean time, I endeavour universally to expel the morbid Matter, by a Method of Cure varied according to the Nature of the Disease, and which Experience shews to be readily curative of the particular Species thereof. And in reality, whoever is thoroughly acquainted with the Method of expelling the febrile Matter, whether by Bleeding, Sweating, Purging, or any other more proper Way, will have the best Success in the Cure of all Fevers. *Sydenham.*

INTERCURRENS Pulsus. The same as PULSUS INTERCIDENS; which see.

INTERCUS. That Species of Dropsy, called *Anasarca*, is sometimes thus nam'd.

INTERDENTIIUM. The Intervals betwixt the Teeth of the same Order.

INTERDIGITIUM. A Corn betwixt the Toes.

INTERFOEMINEUM. The PERINEUM; which see.

INTERLUNII MORBUS. The Epilepsy.

INTERMISSIO. An Intermision; that is, the Interval betwixt two Paroxysms, or Fits of a Fever, or other Distemper.

INTERMITTENS Febris. An Intermittent Fever. See PYREXIS.

INTERMITTENS Pulsus. An Intermittent Pulse. See PULSUS.

INTERNODIA. The Internodes, or Joints of the Fingers.

INTERNUNTII DIES. Critical Days.

INTERNUS. The Appellation of a Muscle of the internal Ear. See AURIS.

INTEROSSEI MUSCULI.

These are small Muscles lying between the Metacarpal Bones, and filling the three Interstices left between them, both exteriorly, or towards the Back of the Hand; and interiorly, or towards the Palm of the Hand. From this Situation they have the Name

of *Interossei*, and have been divided into external and internal. They are commonly reckoned six in Number, three external, and three internal; Regard being had only to the fleshy Masses in the Metacarpus, and to the six tendinous Insertions in the Fingers; But, if we consider the Composition of these Masses, their Number may be increased.

The external *Interossei* are stronger, more compound, and take up more Space between the Metacarpal Bones, than the internal: Each of them is made up of two Portions; one which appears almost on a Level with the Bones; the other hid, and which runs in upon the internal Muscles.

The apparent Portion is, in some measure, penniform, being fixed along the Sides of two Bones, and, also, by a small Extremity, to the nearest Bone of the Carpus. The other Portion, which lies hid, appears more simple, and seems to be fixed only to the Bases of the same two Bones.

Near the Heads of the Metacarpal Bones, these two Portions of each Muscle end in broad flat Tendons, which, having reach'd the Side of the first Phalanx of one Finger, are afterwards united with the nearest Portion of the Tendon of the Extensor Communis. One Portion is likewise inserted in the Phalanx itself, by small short Tendons. These Muscles may therefore be reckoned Bicapital; especially when the Tendons of the two Portions unite.

The first two external *Interossei* are, for the most part, inserted in the middle Finger: They fill the Interstices between the three first Metacarpal Bones, and surround the middle Bone all the Way to the Hollow of the Hand: Their Tendons are fixed in both Sides of the first Phalanx, and in both Sides of the second Tendon of the Extensor Communis.

The third external *Interosseus* lies in the Interstice between the two last Metacarpal Bones, and is most commonly inserted in the ring Finger; its Tendon being fixed in that Side of the first Phalanx farthest from the Thumb, and in the corresponding Edge of the third Tendon of the Extensor Communis. The fleshy Body of this Muscle runs in between the two Bones, toward the Hollow of the Hand.

The internal *Interossei* are more simple than the former, and do not lie so much between the Bones. The Tendon of the first is inserted in the Side of the first Phalanx of the fore Finger, next the little Finger, and in the corresponding Edge of the Extensor Communis. The Tendon of the second goes in the same manner to the Side of the ring Finger, next the Thumb; and the third, to the same Side of the little Finger.

There are, therefore, two external *Interossei* for the middle Finger, one for the ring Finger, but none for the fore and little Finger. The middle Finger has no internal *Interosseus*; but the Index, ring Finger, and little Finger, have each of them one.

The external *Interossei* appear sometimes to be really double, the two Muscles being separated by a pinguious Line; so that in some Subjects we have six internal *Interossei*. But the fleshy Portions, on each Side of the second Metacarpal Bone, belong to the two first external Muscles; and the fleshy Portion, on the Side of the fourth Metacarpal Bone, next the Thumb, belong to the third external *Interosseus*.

The *Interossei* may have two different Uses, according to their different Insertions, and the different Situations of the Fingers in which they are inserted.

In general, they assist the Extensor Communis by their Insertions in the lateral Angles of the rhomboidal Fissures; for thereby they act like lateral Ropes, which, together with the Tendons of the Extensor, serve to extend the third Phalanx of each Finger.

By the same lateral Insertions they perform the lateral Motions of the Fingers, that is, they press them all close against each other, but do not separate them all, nor move each Finger in particular towards or from the Thumb. In a general Separation of all the Fingers, the *Interossei* move only the middle and ring Fingers; the Index and little Finger being separated by other Muscles. In the Motion of the Fingers toward the Thumb, which is termed Adduction, they act only on three Fingers, the middle, ring, and little Fingers. In the contrary Motion or Abduction of the Fingers, they move also three, which are, the Index, middle, and ring Fingers.

The Uses of the *Interossei* in particular, whether external or internal, may be different in different Subjects, according to the Variety of their Insertions; and, therefore, in living Bodies, nothing can be determined about them.

According to the Situation in which I have described them, the first and second external *Interossei* perform alternately the Adduction and Abduction of the middle Finger; the third performs the Abduction of the ring Finger, that is, moves it toward the little Finger.

The first internal *Interosseus* makes the Abduction of the Index, or moves it toward the middle Finger; the second makes the Adduction of the ring Finger, by moving it, also, toward the middle Finger; and the third performs the Adduction of the little Finger, or moves it toward the middle Finger. *Winflow's Anatomy.*

THE INTEROSSEI OF THE FOOT.

These are seven small Muscles, which fill up the four Interstices between the Metatarsal Bones, much after the same Manner as in the Hand. The four largest are superior, the other three inferior. The common Division of them into external and internal is very improper.

The first of the superior Muscles is fixed posteriorly by fleshy Fibres, in the Ligament which connects the Basis of the two first Metatarsal Bones; in the Outside of the first Bone, and in the upper Part of the Inside of the second. It ends in a small Tendon, which is inserted in the Inside of the first Phalanx of the second Toe.

The other three are fixed by fleshy Fibres, in the inner and upper Parts of the last three Metatarsal Bones, and in the outer and upper Parts of the second, third, and fourth Bones. They, also, end in Tendons, which are inserted in the Outsides of the first Phalanges of the second, third, and fourth Toes.

The three inferior Muscles are fixed proportionably by fleshy Fibres to the lower Parts of these Bones, principally to the third, fourth, and fifth, and to the Ligaments belonging to their Bases. The first inferior *Interosseus* is likewise fixed by some Fibres to the Tendon of the Peronæus Maximus. The Tendons of these three Muscles are inserted in the Insides of the Bases of the first Phalanges of the last three Toes.

The *Interossei* of the Foot have the same Uses as of the Hand. The first superior Muscle brings the second Toe near the great Toe; the other three bring the second, third, and fourth Toes, near the little Toe. The three inferior Muscles move the last three Toes toward the other two. I here speak according to the Situation which I have most frequently observed; but, as that Situation varies, the Uses must likewise be different. *Winflow's Anatomy.*

INTERPASSARE, in Medicine, is to quilt a Bag fill'd with medicinal Ingredients, in order to their equal Distribution.

INTERPELLATUS Morbus, in Paracelsus, is a Disease which is attended with irregular, or uncertain Paroxysms.

INTERPOLATUS Dies, in Paracelsus, is a Day free from a febrile Paroxysm; or a Day interpolated betwixt two Paroxysms.

INTERSCAPULARIA. The Cavities betwixt the Scapulae and Vertebrae. *Blancard.*

INTERSCAPULIUM. The Spine of the Scapula.

INTERSEPTUM. The UVULA, and the SEPTUM NARUM, are thus call'd.

INTERSPINALES COLLI, certain Muscles of the Neck, call'd by *Winflow*, *Spinales Colli Minores.*

These Muscles lie between the six spinal Apophyses of the Neck, and between the last of the Neck and first of the Back; being inserted in these Apophyses by both Extremities on one Side of the posterior cervical Ligament, which parts them from those on the other Side.

The Inter-spinales are Assistants to the Semi-spinales in their mutual Action, and may, also, serve to bring back the Neck to its natural Situation, after small Motions of Rotation. *Winflow.*

INTERSTINCTUS. Distinct, relative to the Small-pox.

INTER-TRANSVERSALES Musculi, called by *Winflow* *Transversales Colli Minores.*

These are very small short Muscles, found in the Interstices of several transverse Apophyses, in which they are inserted. *Winflow.*

Their Use is to approximate these transverse Apophyses.

INTERTRIGO. A Galling. Gallings produced by the Wringing or Attrition of uneasy Shoes are mollified and kept from Swelling by the Application of the Lungs of a Swine, or a Lamb, warm, to the grieved Part. Effectual to the same Purpose is the Powder of a burnt old Shoe, sprinkled on the Place; or raw Wool, or the Flowers of the Garden Pomegranate, each of them burnt, and the Ashes sprinkled thereon; or *Acastia* rubbed on the galled Part with Vinegar. To those who have tender Flesh apply the *Emplastrum ex Hordeo*. For Gallings, Burns, and Eruptions of Papulae, a most excellent Plaster is prepared of three Ounces of Litharge, four Ounces of Wax, one Ounce of recent Swines Fat, and a Pound of Oil of Myrtle: To induce a Cicatrix, omit the Fat in the Prescription. *Actius, Tetrab. 4. Serm. Cap. 67.*

Balaustines are much commended by *Oribasius* for speedily cicatrizing Gallings and old Ulcers: The Bark of the Pine-tree, also, is said by the same Author to be excellent for Gallings, being applied to the Place.

Intertrigo takes its Name, according to *Varro de Lingua Latina, Lib. 4. ab eo quod duo inter se trita.* *Rhodii Lexicon Scribentium.*

Children are subject to Inflammations and Excoriations, in several Parts of their Bodies, particularly behind the Ears, in the Neck and Thighs. Those on the lower Parts usually proceed from the Acrimony of the Urine, which sometimes frets off the Epidermis, and leaves the Cutis bare. The Cure may be accomplished by washing the Parts gently with warm Water, twice or thrice a Day, which dissolves and drinks up the acrimonious Salts of

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of the Urine lodged therein. Nurses usually dissolve a little Fullers Earth in the Water, and apply it to the Part, after it has been well washed. Finely powdered Ceruse, Chalk, or calcined Slate, will, also, serve for the same Purpose. But where the Inflammation and Excoriation are considerable, 'tis proper to use, by way of Fomentation, a Solution of Trochisci albi Rhafis in Plantain-water, twice or thrice a Day. In the mean time the Parts should, by all means, be kept dry, or prevented from rubbing one against another by the Interposition of fine Linen Rags, or the Use of a little red desiccative Ointment or Diapompholygos spread thin upon it.

INTERVALLUM. An Interval betwixt two Paroxysms of a Distemper; or betwixt two Pulsations of the Artery.

INTERVERTEBRALES Musculi.

They arise from the Body of one Vertebra laterally, and are inserted, after an oblique Progress, into the back Part of the other Vertebra immediately above it.

Their Use is to draw the Bodies of the Vertebrae nearer one another, and a little to one Side. *Douglas.*

INTESTINA TERRÆ. Earth-worms.

INTESTINA. The Intestines. See **COELIA.**

As I have generally consider'd the Stomach and Intestines together as one continued Canal, I shall, in this Place, give an Account of the Inflammations to which they are subject. And first of the Stomach.

This Organ, like all other Parts of the Body, may be seized with a true Inflammation, the Signs and Effects of which are generally these following: A burning, fix'd, and pungent Pain in the Stomach; an Exacerbation of this Pain, at the very time any thing is taken into the Stomach; a painful Vomiting immediately after Eating or Drinking, accompany'd with a tormenting Hiccup; a violent and perpetual Uneasiness about the Præcordia, and an acute continual Fever. The Causes of this Disorder are either general Inflammations, the Contiguity of the Stomach to the other Parts inflam'd, or the taking acrid Substances into the Stomach.

An Inflammation of the Stomach generally soon proves mortal, unless expeditiously cured, in consequence of the Injury done to the important Function of this Part, and the incredible Number of Nerves connected with it.

Like other Inflammations, it terminates either in Health, in suppuratory, scirrhus, cancerous, or gangrenous Disorders, or in the sudden Death of the Patient, accelerated by Convulsions.

As soon as this Disorder is, from its Signs before enumerated, known to be present, we are forthwith, and with the greatest Care, to use liberal Venesection, which is to be repeated as Necessity requires, highly mild, nutritive, emollient and antiphlogistic Liquors, of a Quality opposite to the Cause of the Disorder; as, also, Clysters and Fomentations of a like Nature. But all acrid Substances, and especially Vomits, are carefully to be abstain'd from.

A mild and lenitive DRINK.

Take of the recent Leaves of Wood-sorrel, three Ounces; of the Leaves of Mallows, an Handful and an half; of entire Oats, an Ounce: Boil with a sufficient Quantity of Whey; to every twelve Ounces of which add two Yolks of Eggs, and one Ounce of the Rob of Currants.

A CLYSTER.

Take of the recent Leaves of Endive, Succory, Fumitory, Mallows, and Marshmallows, each an Handful: Boil with Whey, and, after expressing the Decoction, use ten Ounces of it for a Clyster, twice or thrice a Day.

If an Inflammation of the Stomach terminates in a Suppuration, many seemingly surprising Misfortunes ensue; but especially a Nausea, Vomiting, and Pain, which, when their Cause is unknown, are rarely cur'd; but when it is known, they are to be treated in the same manner with Abscesses.

When an Inflammation of the Stomach produces a Scirrhus, or a Cancer, it then excites excessive Vomiting, and intolerable Pains, which are heightened and protracted by taking the least thing into the Stomach, of a fixed Nature, and augmented by all acrid Medicines.

By mild and lenient Medicines alone, this Species of the Disorder may be alleviated, but rarely cured. Medicinal Waters are, however, in this Case, the most efficacious Means of Relief.

From what has been said above, and under the Article **HEPAR**, the Origin, Nature, Effect, Knowledge, Prognostic, Cure, and palliative Cure of Inflammations, Suppurations, Gangrenes, Scirrhuses, and Cancers, of the Spleen, Pancreas, and Omentum, may be deduced.

INFLAMMATIONS OF THE INTESTINES.

Not only the Stomach, but also the Intestines, especially small ones, are often subject to an acute Inflammation in their Membranes. This Misfortune is produced by the common Causes of an Inflammation, convey'd to the Intestines; either, for Instance, by the acrid Matter of Liquors drunk, of Aliments, Spices and Pickles, Medicines, or Poisons, taken into the Stomach, convey'd

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thence into the Intestines, and there retain'd in their valvulous Folds. This Misfortune may, also, be produced by an acrid, putrid, fetid, purulent, ichorous, gangrenous, bilious, or atrabilious Matter convey'd from the Oesophagus, Stomach, Liver, Spleen, Pancreas, and Omentum, to the Intestines, where it remains and corrodes them. And, lastly, an Inflammation of the Intestines may be produced by violent previous Convulsions, which create Flatulences, stop the Motion of the Fluids, and by that means produce an Inflammation.

This Disorder contracts the Intestines, closes up their Cavities, prevents the Passage of what is convey'd to them, produces highly acute, burning, and fixed Pains; excites violent Convulsions, when the inflam'd Part is irritated by the Things convey'd to it; renders the Patient costive; excites a Vomiting of the Aliments, and of Things convey'd to the affected Part, sooner or later, according as the Inflammation is near the superior, or inferior Parts of the Intestines; produces painful Flatulences, acute Gripes accompanied with Rumbings, the Iliac Passion, that Disorder call'd Volvulus, an Abscess, a Gangrene, a Scirrhus, a Cancer, a highly acute Fever, excessive Weakness, in consequence of the intense Pain, and sudden Death.

So long as the Disorder continues in its inflammatory State, it is, by the Ignorant and Unskilful, taken for a Twisting of the Intestines; and being, through a dangerous Mistake, ascribed to Cold, Flatulences, and Wind, is for that Reason treated with hot Medicines, a Practice which proves fatal to the Patient.

But a genuine Inflammation of the Intestines is known from its concomitant continual acute Fever, intense Thirst, excessive Heat, a hard Pulse, a burning Pain, high-coloured Urine, and the Induction of a sudden Weakness.

When an Inflammation seizes the Flexure of the Colon, the Disorder resembles the Colic; but, if it seizes the Extremity of the *Intestinum Rectum*, it is generally taken for the blind Hæmorrhoids; in which Case, its most happy Termination is by a mild, bloody, and bilious Dysentery.

As soon as an Inflammation of the Intestines is known to be present, from the Signs before enumerated, we are, in its first Stage, with the greatest Expedition, to attempt its Cure; which is to be obtain'd, first, by liberal and repeated Venesection, as in a Pleurisy; secondly, by the careful Injection of laxative, diluting and antiphlogistic Clysters, repeated three, four, or more times a Day; thirdly, by the frequent drinking of Liquors of a laxative, diluting, and antiphlogistic Nature, with a prudent Addition of Opium, and such Things as are opposite to the particular known Cause of the Disorder; fourthly, by Fomentations prepar'd of Substances of like Qualities apply'd to the whole Abdomen, and especially Fomentations consisting of young, vigorous, and sound Animals; fifthly, by carefully abstaining from all kinds of Drink, Aliments, or Medicines which are of an acrid, hot Nature, or capable of increasing the Impetus of the Fluids; as, also, by avoiding Exercise, and the Exorbitancies of the Passions; and, sixthly, by persisting in the Use of these Things, till the entire Disorder is remov'd, and does not return in three Days.

If this Disease is not cured by proper Remedies, and continues to rage with Violence longer than three Days, the Pain, Heat, and Distraction, are succeeded by a Shivering thro' the whole Body, without any apparent Cause, and by an obtuse Pain, with a Sensation of Weight in the Part affected; these are Signs, that an Abscess is forming in it: Within fourteen Days after, the Abscess breaking, the Pus will be discharg'd: If this Pus is discharg'd into the Cavities of the Abdomen, it produces many Disorders similar to those arising from a Discharge of Pus from the Liver, and mention'd under the Article **HEPAR**: But, if this Pus is discharg'd into the Cavities of the Intestines, it produces a purulent Dysentery, small or great, short or long, according to the Nature of the Ulcer form'd. In this Case, entire Membranes of the Intestines are frequently discharg'd, and a Consumption is often brought on.

As soon as an Inflammation of the Intestines is known to be present, all such Aliments are carefully to be abstain'd from, as are capable of generating a large Quantity of hard and thick Faeces: The Patient is only to be nourish'd with Broths boiled with gently detergent Roots; balsamic detergent Decoctions are to be copiously drank, and injected by way of Clysters; or Medicinal Waters are to be copiously drank, and their Use persisted in till a perfect Cure is brought about.

The ALIMENT to be used in this Disorder.

Take of the Roots of Viper's-grass, Goat's-beard, Skirret, Parsley, and Succory, each two Ounces: Boil in Mistletoe, and, with every thirty Ounces of the Broth, mix two Yolks of Eggs, and a sufficient Quantity of Salt.

A DECOCTION.

Take of the Roots of Garden Valerian, two Ounces; of the Leaves of Lovage, two Handfuls; of the Flowers of Saint John's-wort, one Handful; and of the Flowers of Agrimony, two Ounces: Boil with two Pints of Water; of which let the Patient drink two Ounces every Hour. This Decoction is also to be used as a Clyster.

If the Disease proceeds from highly violent Causes, and such as are productive of terrible Symptoms in the inflam'd Part, a Gangrene may be easily produced, which will at last prove mortal.

From the Violence of the Causes, and the terrible Nature of the Symptoms, we may easily foresee, that a Gangrene will happen, if the Signs of a benign Resolution and Cure do not, at the same time, appear.

That a Gangrene is forming, may be known, not only from the Circumstances mentioned in the preceding Paragraph, but, also, from the sudden Remission of the intense Pain, without any apparent Cause; a weak and intermittent Pulse; a Dysentery, in which the Matter discharg'd is fetid, cineritious, ichorous, livid, or black; an insensible Evacuation of the Fæces; and, soon after, a calm and gentle Death.

The Disorder, when attended with the last-mentioned Train of Symptoms, is rarely to be cured; but ought to have been so before these appeared: But the only beneficial Measures which can be taken, are, that the Patient should abstain from all Aliments capable of producing a large Quantity of hard, acrid, and thick Fæces; that he should be nourish'd with Broths, in which gently detergent Roots are boil'd, drink large Quantities of balsamic and detergent Decoctions, have the same injected by way of Clyster, and use large Quantities of Medicinal Waters.

But if the Part inflam'd is glandular, the Heat intense, the impacted Matter thick, the Emunctories of the Glands obstructed, and their Follicles and Sides distended, a Scirrhus arises, which is a very different Disorder from the preceding; and must be clearly and certainly known and distinguish'd.

If, therefore, an Inflammation in the small Intestines, with the Conditions mentioned under the Article INFLAMMATIO, as necessary to form a Scirrhus, is of long standing, but does not rise to the greatest Height; and, being neither cured by Resolution, proper Medicines, nor Suppuration, leaves in the Part affected, a Stupor, a Sense of Weight, and a constant Distraction, we have just Ground to suspect, that a Scirrhus is forming there.

If this Scirrhus follows its general Nature, and produces its ordinary Effects already mentioned, in this Part, many violent and obstinate Disorders ensue, such as Stupor, Weight, and Increase of Bulk, all which are daily augmented: Hence proceeds a Lessening of the Cavity of the Intestines; a Stagnation of the Fæces and Chyle in them, and their Action on the resisting Parts; the Matter, in the mean time, becoming highly putrid by its Continuance. Hence arise an Obstruction and Intortion of the Intestines, and the consequent Detention of the Fæces; the Iliac Passion; that Disorder called Volvulus, or a Dysentery of a drier Species, produced by an acrid irritating Matter; Convulsions; Hiccup; Vomiting; continual Pain; a Fever; Extenuation; an Atrophy; and, at last, Death.

Medicines of whatever Kind are of little Efficacy in this Species of the Disorder: Let the Patient, however, abstain from all such Aliments as generate large Quantities of thick and hard Fæces, and feed only upon Broths, in which detergent Roots are boil'd: He must, also, drink large Quantities of balsamic and detergent Decoctions; which are, also, to be injected by way of Clysters. Medicinal Waters are, also, to be liberally used. By these means the Disorder may be long protracted without any great Degree of Inconvenience.

But if the Scirrhus, generated in this Part, is join'd with the Causes capable of producing a Cancer, and is known by the Signs enumerated under the Article CARCINOMA, then the State of the Patient is highly miserable, and incurable; and may be understood from what is said under that Article, compared with the Nature, Function, and nervous Texture, of the Intestines. And the Patient is, in a particular manner, afflicted with an highly acrid, continual, and obstinate Dysentery, which burns, corrodes, and consumes all the Parts it touches; and is attended with violent Convulsions, and intolerable Pains of a fixed and lasting Nature, till, at last, Death puts an End to the Patient's Misfortune.

When the Presence of a Scirrhus is known by the Signs enumerated under that Article, great Caution is requisite, and it is to be treated in the manner already directed. But if, in order to remove it, acrid Substances are us'd, especially drastic Purgatives, a Cancer is produced, and rages with uncommon Violence. In this Case the Drink is to consist only of recent Whey; and the Patient is to be nourish'd only with Broths prepar'd of farinaceous Substances alone, or Flesh, together with the Yolks of Eggs. Mild Clysters, consisting only of a Decoction of Linseed, Leaves of Nightshade, or white Poppy-heads, are to be injected. Then Medicines highly demulcent, anodyne, gently narcotic, and not easily convertible into an acrid Nature, are to be exhibited.

From what has been said, it is sufficiently obvious, why, in Practice, so violent, fixed, obstinate, intolerable, and insurmountable Pains are perceiv'd in the Oesophagus, the Mouth of the Stomach, the Liver, the Spleen, the Pancreas, the Ilium, and the Colon; as, also, how various and surprising a Disorder a Dysentery is in every respect; how improperly and unjustly, in Disorders of this kind, a certain hectic Acrimony of the Hu-

mours is accus'd, and prejudicial Medicines exhibited, in order to remove this supposed Acrimony; how great Caution is requisite in exhibiting Purgatives, in excessive Pains of these Parts; what is the Nature of that incurable Hypercatharsis, which, in some Patients, frequently succeeds the Exhibition of Purgatives; how various Remedies and Measures are requisite to the Cure of Dysenteries; how vain, fallacious, and destructive it is, to prescribe one Medicine, as proper in all their various Conditions and Natures; or, in general, one universal Method of Cure.

INTORTUS. Writhed, twisted. *Scribonius Largus*, N. 43. directs Vaporation of the Parotides, with fervent Sea-water, by means of recent Sponges dipt therein, and express'd *per Linteam intortum*, through a twisted Linen Cloth, for the greater Force. *Celsus*, Lib. 5. Cap. 28. for a Callus in a Fistula, directs us to introduce *Papryrum intortum*, a twisted Piece of Papyrus, anointed over with some Caustic. *Intorta Venæ & conglomeratae*, in the same Author, Lib. 7. Cap. 18. are Veins twisted or shrivel'd up, and conglomerated in a Circoscele.

INTOXICATIO, from *Toxicum*, τοξικόν, Poison, Venom, is properly the same as INFECTIO. *Paracelsus*, Lib. 1. de Peste, restrains *Intoxicatio* to the external Poisoning of Wounds and Abscesses. It is generally now us'd in a topical Sense for *Inebriatio*, Inebriation. See ALCOHOL.

INTRICATUS. An Epithet of a Muscle. See BICAVDALIS.

INTRITUM, ἐνείσιν, ἐνείσιν, ὑπὸ τεύμα, a culinary Word, signifying a sort of minced Meat, so call'd *ab interendo*, from rubbing or grating. *Intrita*, according to *Pliny*, is Food prepar'd by rubbing or grating. *Donatus* says, it is properly *Mortarium alliatum*. *Intrita* and *Intritum*, in *Martial*, signifies Meats prepared by pounding in a Mortar; for which the Moderns use *contusum*. *Celsus* uses *Intrita* in the same Sense; as do *Varro*, also, and *Columella*. *Rhodii Lexicon Scribonianum*.

INTROSUSCEPTIO, INTUSSUSCEPTIO. Introsusception is a preternatural Ingress of one Portion of an Intestine into another, or a Reduplication of the Intestine. See ILIACA PASSIO.

INTSIA. The Name of a very large evergreen Tree, which grows in *Malabar*, call'd, also, *Acacia Malabarica Globosa*. The Juice of the Leaves, and of the Bark, taken with a little Salt, mitigates Pains of the Belly: And the Bark, pulverized, and sprinkled upon Ulcers, is said to ease the Pains thereof. *Raii Hist. Plant.*

INTYBUS. A Name for the *Cichoreum*; *latifolium*: *five Endivia vulgaris*: For the *Hedypnois*; *annua*: For the *Hyoseris*; *angustifolia*: And for the *Lampasana*.

INVERECUNDUM OS. The Os Frontis.

INVIDIA. Envy. This is esteem'd a Cause of Diseases by some Physicians, particularly of an Atrophy; and produces its Effect like all other Species of Sorrow.

INUNCTIO. Inunction. This imports either the Action of anointing, or the Materials with which a Part is anointed.

INVOLVULUS. The Name of a Worm found upon Vine-leaves.

INUSTORIA are Cauteries.

IOBOLOS. An Epithet for those kinds of venomous Animals, which dart out their Poisons.

IODES, ἰώδης, from ἰός, *Ærugo*, Verdegriſe. *Æruginous*, or of the Colour of Verdegriſe. It is frequently us'd as an Epithet for the Matter discharg'd by Vomit, in *Hippocrates*.

JOHUALXOCHITL. See COLCAQUAHUITL.

JOLLÆ COMPOSITIO. The Name of an Escharotic describ'd by *Celsus*, Lib. 5. Cap. 22.

ION, ἰόν. The Violet.

JONDRABA. A Name for the *Thlaspidium*; *apalum*; *spicatum*.

IONIA. The *Athenian* Name for the *Chamæpitys*, according to *Paulus Ægineta*, Lib. 5. Cap. 45.

IONTHLASPI.

The Characters are;

It hath a Flower, consisting of four Leaves, which are placed in form of a Cross; out of whose Flower-cup rises the Pointal, which afterwards becomes a Fruit, which is flat, round, and shap'd like a Buckler, having but one Cell, in which is contain'd a flat round Seed.

Boerhaave mentions two Species of this Plant; which are,

1. *Ionthlaspi*; *minimum*; *spicatum*; *lunatum*. *Col. p. 1. 284.*
2. *Ionthlaspi*; *luteo flore*; *incanum*, *montanum*; *διονκασίς*. *Col. p. 1. 280.*

Besides the two foregoing Species of *Ionthlaspi*, *Miller* mentions a third; which is,

Ionthlaspi orientale, *fructu echinato*. *Tourn. Cor.*

The first Sort is found in Plenty upon the Mountains near the *Tiber*. The second Sort grows wild about *Montpellier*; as also in the Fields near *Nismes*, and other Places in the South of *France*; also in *Spain* and *Italy*. But the third Sort was discovered by *Dr. Tournefort* in the *Levant*, from whence he sent the Seeds to the Royal Garden at *Paris*. *Miller's Dict. Vol. 2.*

The

The two first are esteem'd deterfive, aperitive, and vulnerary.

IONTHOS, ἰονθος. An hard and small Pimple in the Face, call'd by the *Latins* *Varus*. See **EPHELIS**, **FURUNCULUS**, and **VARUS**.

IOS, ἰός. *Ærugo*, *Verdegrise*.

IOSACCAR, ἰοσακχαρ. Sugar of Violets.

IOTACISMUS. A Defect in the Tongue, or Organs of Speech, which renders a Person incapable of pronouncing certain Letters.

IOUI. This is an alimentary and restorative Liquor, prepar'd in *Japan*, and capable of being preserv'd ten or a dozen Years. It is fluid like Broth, aqueous, black, of an agreeable Smell, and good Taste, salt, and savoury. With respect to the Manner of preparing it, no more is known, than that it is made of the Gravy of Beef, express'd when half-roasted: The *Japoneses* keep the rest a Secret, and sell it very dear. This Liquor is very rare in *Europe*: Some, however, is imported either on account of Curiosity or Luxury. It is thought to be a Restorative after Diseases, and, on this Account, is esteem'd greatly all over the East.

JOVIS BARBA, or **BARBA JOVIS**.

The Characters, according to *Miller*, are;

It hath pennated or wing'd Leaves; the Flowers are papilionaceous, and are succeeded by short oval Pods, in which is, for the most part, contain'd one roundish Seed.

Boerhaave mentions five Species of this Plant; which are,

1. Barba Jovis. C. B. 397. *Barba Jovis pulchre lucens*. J. B. 1. 11.

2. Barba Jovis; Africana; foliis viridibus pinnatis; flore cœruleo.

3. Barba Jovis; Hispanica; incana; flore luteo. T. 651.

4. Barba Jovis; Lagopoides; Cretica; frutescens; incana; flore spicato, purpureo, amplo. *Breyn. Prodr.* 2.

5. Barba Jovis; Græca; Linariæ folio argenteo, ampliori; flore luteo, parvo. T. C. 44. *Boerb. Ind. alt. Plant. Vol. 2.* p. 40.

There are no medicinal Virtues attributed to either of these Plants at present, that I know of.

Miller mentions nine Species of this Plant.

JOVIS FLOS. The Crocus. *Blancard*.

IOULOS, ἰουλος. The first Appearance of downy Hairs on the Chin is thus call'd; as also the downy Hairs on the Temples. *Ruffus Ephesius*.

IPECACUANHA. Offic. Pomet. 46. Pis. (1648.) 101. (1658.) 231. Act. Philof. Lond. N. 238. 69. Mont. Exot. 7. Dougl. Ind. 46. Pis. (Ed. 1648.) 101. (Ed. 1658.) 231. Comm. Cat. Plant. usual. (Ed. 111.) 95. *Hippeacuanha*. Bagliv. Prax. 74. *Ipecacuanha Brasiliensis*. Marcgr. 17. Raii Hist. 669. *Ipepocuanha*. Marl. Ob. *Ipecaya sive Pygaya*, Lact. 566. Purch. Pilg. Vol. 4. 1311. *Herba Paris Brasiliensis polycoccus*. Raii Hist. 1. 669. *Periclymenum parvum Brasiliense Alexipharmacum*. Pluk. Almag. 288. *Periclymenum accedens planta Brasiliensis, flosculis congestis albis*. Hist. Oxon. 3. 535. Cod. Med. 61. *Ipecacuana*, Stroth. Mat. Med. 1. 60. Tourn. Mat. Med. 189. **BRASILIAN ROOT**.

This Plant is of some kin to the *Herba Paris*, but differs from it, in that it has more Leaves, six, seven, and sometimes eight, which are of a dark Green above, and lighter underneath, full of transverse Veins; from among these rises one Stalk, bearing on the Top several five-leav'd white Flowers, growing together in a Cluster, each of which is succeeded by a dark-brown Berry, as big as a small Cherry. The Root, when dry, is about as thick as a Goose-quill, appearing wrinkled, and as it were geniculated and knotty, of a brown Colour on the Outside, consisting, principally, of what we may call the cortical Part of the Root, and having but a small whitish Pith; it is of a bitterish Taste, and somewhat earthy Smell. It grows in *Basil*, in moist, shady Woods. *Miller's Bot. Off.*

We have three Kinds of Ipecacuanha, the Grey, or Ash-colour'd, the Brown, and the White; which last, called also *Pseudipeacacuanha*, M. *Tournefort* discovered to have no Virtue, and is, perhaps, that Kind mentioned by *Pisô*; so that, properly speaking, we have only two Kinds of Ipecacuanha, that of *Brasil*, and that of *Peru*, called *Bexuguillo*. The Plant which produces this latter sort is unknown; and the Root itself was not known in *France* till the Year 1672. One M. *Le Gras*, who was not a Physician, brought it first over, and gave it to M. *Craquelin*, an Apothecary; but it succeeded very ill in his Hands, he having given it in the Quantity of two Drams for a Dose, which was too great. In 1687. Mr. *Garner* attempted to re-establish its Credit; in order to which he applied to the elder *Helvetius*, who made several successful Trials of it. After which the King purchased, of *Helvetius*, the Secret, and Manner of giving it, and made it known to all the World; and it was afterwards of great Service in the Armies and Hospitals. *Geoffroy*.

Dr. *James Douglas* in the *Philosophical Transactions*, takes notice of the following sorts of Ipecacuanha.

The first general Division of these Roots, says he, must be into true and false; and each of these may be again subdivided

into several Species, the distinctive Note of which is principally taken from their Colour.

Of the true Ipecacuanha I have four Kinds, Black, Brown, Grey, and White; but I cannot pretend to determine whether they belong to different Plants, or are only Varieties of the same Plant, owing to the Soil in which they grow, as is affirmed by Sir *Hans Sloane*. And as these Roots are never imported to us entire, it is impossible to give any certain Description of them in that State.

However, by comparing the several dried Pieces, as we have them, we may very probably conjecture, that a short radical Trunk descends from a *Caulis*, and is afterwards divided into several large Branches; and these again into smaller ones, in different Series with minute Filaments, or Fibrillæ, going out from them.

Each Piece is made up of an outer or cortical Part, and an inner or fibrous one, which, like a white Nerve, or smooth compact Fasciculus of woody Filaments, runs through the Centre or Axis, of the Roots; and, perhaps, incloses within it a small Pith, which, however, is hardly discernible by the naked Eye.

The cortical Part is corrugated by two sorts of Wrinkles, one superficial, consisting either of circular Rings, or little Knots, which do not go quite round; the other penetrating into its Substance, being deep Incisures, or Fissures, reaching all the Way to the Nerve.

What Lengths these Roots are of, when taken out of the Ground, cannot be determined: I have met with some Pieces above nine Inches, many above six, but the greatest Number is still shorter.

We find them bent, writhed, and contorted into all manner of Figures; and, indeed, few Pieces are altogether straight for any considerable Length.

What has been hitherto said, agrees to all the true Ipecacuanha-roots; but several other things are still to be taken notice of, in which they differ.

The Black Sort is the smallest of the four, very hard, and the Fissures wide and numerous. The outward Colour of the Cortex is not equally black, in all the Pieces of this Kind; and its inner Substance, as well as the Nerve, is mostly white, tho' not always in the same Degree.

The Brown Sort is larger than the Black, the Fissures at larger Distances, the inner Substance of the Cortex darker, and the external Colour has several Degrees of Redness in the several Pieces. The third, or Grey Sort, is sometimes found of a darker, sometimes of a lighter Colour; and the inner Substance of the Cortex is Brown, streaked with White. It is much larger than the Black Sort, many Pieces being above one-fourth of an Inch in Diameter, but the Nerve is small in proportion to the cortical Part. I have met with few Pieces of this Species above five Inches in Length; but, as I have already observed, nothing can be concluded from thence as to the Length of the whole Roots. The Fissures are here still fewer than in the Brown Sort, and in some Pieces scarce any are to be met with. The superficial Corrugations are various in different Roots, some being almost wholly smooth, and in others the Wrinkles rather longitudinal than circular.

The White Kind, as far as I can judge, by the small Sample which I have of it, is of very different Sizes, some Pieces of it being larger than any of the Grey Sort, and the rest much less. The whitish Colour of the Cortex has a yellowish Cast, and the nervous Part is very large, in proportion to the rest. Very few Fissures are to be observed therein, and hardly any reach so deep as the Nerve. The other Corrugations are, likewise, very shallow, and most of them longitudinal; but it seems to be more knotty than the other Kinds, and these Knots I take to be owing principally to the Fibrillæ, which go out from the larger Branches of the Roots.

The Places of Growth of these different Species of Ipecacuanha have not, as yet, been fully settled. The Black Sort is hitherto known to come only from *Brasil*, by the Way of *Lisbon*, and some of our Druggists, for that Reason, distinguish it by the Name of the *Brasil Root*.

About the Brown Sort I am informed, by Dr. *James Housloun*, who resided several Years in *New Spain*, that it grows plentifully at some Distance from the City of *Cartagena*, in the Kingdom of *New Granada*; from whence it is frequently sent in Saroons, or Skins, containing an hundred Weight, to *Jamaica*, and so to *England*; where it is certain we have had it, of late Years, in great Abundance.

The Grey Ipecacuanha is, with us, preferred to all the rest, and by far the most generally used, when it can be had. It is said, by Authors, to grow in *Peru*, from whence it is brought to *Portobello*, and from thence into *Europe*, by the *Spanish* Galleons. Some Parcels of it are, likewise, probably, sent from *Portobello* to *Jamaica*; for we are certain, that it has, sometimes, been imported hither from that Island. By some Specimens brought me from *St. Thomé*, a *Portuguese* Island, under the Equator, whether they were sent directly from *Brasil*, it is evident, that this Species is, likewise, a Native of that Country; and there-

fore

fore must either have been included by *Piso*, under one of the two Species mentioned by him, or else discovered since his Time. According to Father *La Bat*, in his late Voyage to the Islands of *America*, this Species grows, also, plentifully in *Martinico*, where, for many Years past, it has been used by the Inhabitants.

The White Sort, called, by the *Portuguese*, *Ipecacuanha Blanca*, is said, by *Piso*, to grow in *Brasil*; and, if we may believe Father *La Bat*, it is likewise found in *Martinico*.

These are the four Kinds of true *Ipecacuanha*, which have hitherto come to my Knowledge; but I have met with two other Roots, to which that Name has been falsely ascribed, which from their outward Colour I shall call White and Reddish-brown.

The White Sort agrees nearly, both in Colour and Surface, with the true White, but it is not near so knotty. It is, likewise, considerably larger in Size, straighter, and softer to the Touch.

The Brown Sort is of a deeper Colour than the true Brown, and many Pieces have some Mixture of Red, (from whence it has been, sometimes, called Red *Ipecacuanha*) and the inner Substance of the Cortex inclines to a reddish Yellow. The Pieces of it are much longer than any of the former Sorts, some of them measuring sixteen Inches, and they are of a Size between the Black and the Grey. The Fissures are at greater Distances from one another, than in the true Brown, and the Spaces between them much smoother. In a Word, though this Root, when mixed with the true Brown, to which it bears the greatest Resemblance, may easily be confounded with it; yet, when they are attentively compared, the whole Appearance sufficiently distinguishes them.

Both these false Kinds were brought me from *Maryland*, in 1725, by a Surgeon, who informed me, that they grow there in great Plenty, being called *Ipecacuanha* by the Inhabitants, and used as a Vomit by those of inferior Rank. I have, since that Time, received a Sample of the Brown Sort, taken from a Parcel which lay in the Custom-house, above twelve Years ago, and called by the Name of wild *Ipecacuanha*.

Sir HANS SLOANE informed me, that this false Brown Kind was the same which was formerly sent to him from *Virginia* for the true *Ipecacuanha*, and which he afterwards discovered to be the Root of a poisonous *Apocynum*, described by him in his *Natural History of Jamaica*; in which Island it is very common, and likewise in *New Spain*, as appeared by the Specimens sent him by Dr. Burnet. See APOCYNON.

M. BOULDUCE'S Analysis of IPECACUANHA.

There are, says this Author, two Species of *Ipecacuanha*, known at present, one Grey, the other Brown, inclining on the Outside to Black. The Grey is less violent in its Effects, and less certain in its Success, than the Brown, as appears from Experiments made by myself and others: However, as we generally prefer mild before violent Remedies, the Grey *Ipecacuanha* is more frequently used than the Brown.

Since these two Roots came in Request, we have been presented with a third, which though of a white Colour, and little resembling the others, they have been very solicitous to have it pass for another *Ipecacuanha*; and, in Fact, it is now called *The White Ipecacuanha*, and is used in some Distempers, as the other, for Infants, and Women with Child, because generally it has very little Effect.

I went first to work upon the Grey Sort, with a Design to carry on the Operation to the other two. I made an Analysis of it, by two different Methods; one, by the common Way of Distillation by the Retort, in a close and gradual reverberatory Heat; the other, by way of Extraction, with proper and convenient Dissolvents.

By Distillation I obtain'd no more, at first, than a Phlegm, and an acid Spirit, with a little Oil: And from the black Mass which remain'd in the Retort, and was calcin'd by a very violent Fire, I obtained a very small Quantity of fixed Salt.

I gain'd so little Knowledge by this Analysis, that I might be excused from entering into a tedious and particular Account of the Proportions and Effects of all the Parts produced from it: And I might justify myself for omitting it, from a Persuasion that it would be of no great Service for acquainting us with the true Nature of the mixed Bodies, and that it only presents us with the common Substance destroyed. And yet I thought myself oblig'd to give it, not only because it has been the Custom for a long time, but because it cannot fail to discover and demonstrate to us the Proportions of the separated Parts.

In order, therefore, to make the more successful inquiry into the Constitution of this Root, I thought it best to proceed by way of Extraction; which might afford me an Abstract, or, at least, some essential Part, of the Compound; by which its principal Character, and specific Virtues, might be determin'd.

I began the Extraction with highly rectified Spirit of Wine, and, by that means, obtain'd, from eight Ounces of the Root, ten Drams of sulphureous or resinous Parts; the Residuum, being entirely depriv'd of its resinous Parts, and well dried, weigh'd no more than six Ounces; from which, however, by the Help of distill'd Rain-water, I obtain'd two Ounces of pretty solid

Extract; which was nothing but the saline Parts of the Root, mix'd with some earthy Parts, which were inseparable from them. This Extract had its Parts not very closely united, because it had been separated from its resinous Parts in the preceding Operation.

I thought myself oblig'd to use this double Extraction, one with Spirit of Wine, and the other with Water, because I was very well assur'd, that the Virtue of this Root did not consist in its Resin only, but also in its saline Parts, on which the Spirit of Wine could not fasten, and of which Water was the only proper Dissolvent.

The last Residuum, or Caput mortuum, being deprived of both its resinous and saline Parts, weigh'd no more than four Ounces.

From these two different Extractions it appears, that this Root contains a much greater Quantity of saline than resinous Parts, besides some earthy Parts: Whence I infer, that, without the Help of Spirit of Wine, I could, by Water alone, extract both the saline and resinous Parts of that Root; because the saline Parts being predominant over the resinous, the former are capable of attenuating, disengaging, fusing, and dissolving the others, in order to appropriate them to themselves, and so make of both but one Body, consisting of saline and resinous Parts.

This agrees with Experience; for it is the known Property of Salts to dissolve Sulphur: And the Trial which I made of them on this Occasion confirms my Inference; since, with bare Rain-water, and the like Quantity of the same Root, I obtain'd three Ounces and an half of pretty solid Extract, with its Parts much more closely united than in the preceding Experiment; and from the Residuum, which, when well dried, weigh'd but five Ounces, and would afford no more Extract by Water, by Spirit of Wine I obtain'd no more than one Dram of a kind of Resin.

All this Labour, and all these Observations, would deserve but little Regard, if they were not succeeded by some Experiments made on the particular Effects of these several Parts. My Design is not to speak of those Effects which proceed from the Distillation: We have Proofs enough to convince us, that not one of those kinds of Parts which are abusively call'd *Principles*, retain any of the Virtues of the compound Body from which it was separated. But we are not to pass the same Judgment on those Parts which are afforded by different Extractions; as for these, we know, that they contain, as it were, in Abstract, all the active Principles of the Compound. *Memoires de l'Acad. des Scien.* 1700. p. 8.

In another Dissertation, publish'd the same Year, M. Boulduc gives his Observations upon the Brown *Ipecacuanha*. By Distillation, he remarks, that it yielded less Oil than the Grey; and that the last Portion of Spirit which comes away with its Oil upon the greatest Violence of Fire, although considerably acid, appear'd to him to have more volatile Parts than the same Portion of Spirit in the former. He says, that, by Trial with Salt of Tartar, the Particles of the Brown escap'd with the greater Briskness, and struck the Sense of Smelling more powerfully. Hence he concluded beforehand, that as the Brown contains less oily Parts than the Grey, so it contains fewer resinous: And, in the second Place, that this last Portion of Spirit seems to contain more volatile Parts, which is the Reason it is more violent in its Effects. This Observation may countenance the Opinion of such as believe the purgative Virtues of Medicines to be exalted by means of a certain volatile Salt contain'd in them. By Extraction, both by Spirit of Wine, and by Water, that of the Brown weigh'd less than that of the Grey. The Proportions are these: From eight Ounces of the Grey he had, by Spirit of Wine, ten Drams of a resinous Extract; but, from the same Quantity of the Brown, but six Drams. From the Remainder, thus freed of its resinous Parts, by an aqueous Menstruum he drew, from the Grey, two Ounces of a saline Extract; but, from the Brown, only between five and six Drams. The Remainder of the Grey, after it had been thus deprived of its resinous Parts by the Spirit of Wine, and of its saline ones by the Water, weigh'd four Ounces, but that of the Brown weigh'd near six Ounces; which shews, that the active Principles abound more in the Grey than in the Brown; which is farther confirm'd by the following Way of Extraction. In the former he began with Spirit of Wine, and then us'd Water: But here he extracted first with Water, and then with Spirit of Wine; and observ'd, that eight Ounces of the Brown yielded, by a watry Menstruum, one Ounce three Drams of an Extract very solid and compact; and the Remainder, well dried, yielded, by means of Spirit of Wine, but twenty-four Grains of a resinous Extract; whereas the like Quantity of Grey afforded, by an aqueous Menstruum, three Ounces and an half of Extract; and its Remainder, by Spirit of Wine, thirty-six Grains of a resinous Extract. Whence M. Boulduc thinks it easy to conclude, that the Brown contains less of principal Parts, and more of terrestrial ones, than the Grey. It is, however, certain, that the Brown is more efficacious, which seems a sort of a Paradox: The Reason of which is conjectur'd to be, that active Virtues are not to be esteem'd according to the Measure or Weight of their Bodies. Those of less

less Bulk have often more Force and Energy: *Vis maxima in minima mole*, is a Maxim which holds good in many Instances. It has been taken notice, that the Spirits drawn from the Brown were more piquant, and struck the Senses more briskly, than those of the Grey: Why then may they not have the same Activity in our Bodies, to irritate the interior Parts, and agitate the Humours more violently? The Extracts of the Brown are, indeed, less in Quantity, but their Virtues may be more concentrated, and, by Consequence, more active.

This curious Inquirer, in another Discourse, in the Memoirs for 1701. says, he has found means to deprive this Root of its emetic Quality, the Difference between this and other violent Purgatives having encourag'd him in this Search; the other violent Cathartics, as Scammony, and Colocynth, however prepar'd and corrected, leaving too often fatal Marks of their Action; but Ipecacuanha, though it may appear very brisk in its Operation, leaves generally behind it but an Astriiction of the Part it had before open'd and fatigued. He made a resinous Extract with Spirit of Wine, and then drew out the saline Particles with Rain-water, and found by Experience, that its Violence, as in most other Purgatives, was owing to its Refin. For the Effects of the Refin were more violent than the Root itself, leaving little or no Astriiction afterwards; but the saline Extract was diuretic, purg'd gently without any, or little, Nauseousness, and, in short, had the specific Quality of the Root, that is, to cure Dysenteries.

This Root is given from fifteen Grains to half a Dram, and we ought never to exceed a Dram. It never frigue the Stomach, and is the best Succedaneum for the emetic Tartar. It is the best Specific in Dysenteries hitherto known, acting, in such Cases, not only as an Emetic, but also deterging Ulcers in the Intestines, by a Mucilage contain'd in it, like that of Marshmallows, by which it, in some measure, supplies the villous Coat of the Intestines, when corroded and destroy'd by the Disease. It, also, powerfully shakes and evacuates the Glands of these Parts. Its best Effects are in old Dysenteries, after many other Medicines have been tried, and the Body has, by these, been sufficiently prepar'd; then the first or second Dose generally produces visible good Effects; or, if they should happen to miss, it ought to be continued every Day, in the Quantity of three or four Grains, acting, in that Case, as an Alterative.

This Root has an emplastic and deterfive Quality join'd together; and, though it does not appear sensibly acrid, it produces, in those who powder it, an Oppression in the Thorax, Difficulty of Breathing, and Spitting of Blood. It is, likewise, offensive to the Eyes, increases the Discharge of the lachrymal Glands, and, when the Tears do not find a ready Vent, the Eyes swell. These Effects are probably owing to the mucilaginous Quality of the Root. The same Cautions ought to be observ'd in giving Ipecacuanha, as in giving emetic Tartar. It is taken in Substance, finely powder'd, either mix'd with a Liquid, or incorporated with a proper Syrup, into an Opiate: It may, likewise, be given in Infusion, or Decoction. *Geoffroy*.

However effectual Ipecacuanha Vomits may be in Dysenteries, I much question whether they are so conducive to the Cure of Fevers as Antimonials.

IPNITES, ἰπνίτις. A Species of Bread. See ARTOS.

IPOTERION, ἰπώσιον. The Name of a Malagma, invented by *Astlepiades*, and describ'd by *Galen*, de Comp. M. S. L. Lib. 9. Cap. 3.

IPS, ἰψ. A Species of Worm. The same as INVOLVULUS; which see.

IRA. Anger.

Anger is of such a Nature, that it quickly throws the whole nervous System into preternatural Commotions, by a violent Stricture of the nervous and muscular Parts; and surprisngly augments not only the Systole of the Heart, and its contiguous Vessels, but also the Tone of the fibrous Parts in the whole Body. This impetuous Motion of the Blood and nervous Fluid, in Persons highly enraged, appears evidently from the Increase of the Pulse, the Quickness of Respiration, Thirst, Heat, Inflation and Redness of the Face, the greater Pulsation and Swelling of the Arteries of the Head, especially about the Temples, Piness of the Eyes, Tremor of the external Parts, and a kind of Precipitancy observable in the Functions of the Mind. Besides, we are assured, from practical Observations, that nothing so soon excites acute, bilious, intermitting, and inflammatory Fevers, as violent Anger. It is also certain, that this Passion, by the spasmodic Stricture it produces in the Parts, exerts its Power principally on the Stomach and Intestines, which are highly nervous and membranous Parts; whence the Symptoms are more dangerous, in proportion to the greater Content of the Stomach and Intestines with the other nervous Parts, and almost with the whole Body.

The unhappy Influence of Anger, likewise, on the biliary and hepatic Ducts, is highly surprisng, since, by an intense Constriction of these, the Liver is not only render'd scirrhus, but, also, Stones are often generated in the Gall-bladder, and biliary Ducts: These Accidents have scarce any other Origin, than an Obstruction of the free Motion and Efflux of the Bile, by means of this

violent Stricture. But this generally happens from a Suppression of the lawless Passion, when, for Instance, there is no Opportunity of satiating the latent Principle of Revenge; or when Sorrow is joined with Fear.

From such a Stricture of these Ducts, likewise, proceeds the Jaundice, which, in Process of Time, lays a favourable Foundation for calculous Concretions in the Gall-bladder: When the Bile, also, is put into a violent Commotion by Anger, and copiously discharged from the biliary and cystic Ducts into the Duodenum and Stomach, it frequently happens, that from its Stagnation, and the Acrimony it has contracted by this long Continuance, there arise Nauseas, Vomings, Diarrhoeas, Choleras, Cephalalgias, Anxieties, bilious, continual, and intermitting Fevers: Hence arises that Symptom peculiar to passionate Persons, which is, that, under the immediate Influence of Anger, they are sensible of a certain constrictive Pain in the Right Side, below the Pit of the Stomach, and a certain Bitterness in the Mouth: These two Symptoms derive their Origin from no other Cause than the impetuous Motion of the Bile, and its Effusion into the Intestines, while the biliary Ducts, which are formed of nervous and muscular Coats, being too much compressed with the quick Influx of the spirituous Liquid contained in the Nerves, discharge a large Quantity of Bile, and pour it into the Duodenum; whence proceed an Inclination to vomit, and a Diarrhoea, which *Hildanus*, Cent. 7. Obs. 18. remarks, when he affirms, that the Body has been render'd as soluble by the Influence of Anger, as if Phlegm had been taken. But, if the Bile offends by its Acrimony, and is too copiously discharged, during a Sally of Anger, Evulsions of the Intestines and Stomach, with a subsequent slow Fever, have been frequently observed to be produced by it: And the more acrid the Bile, or the further it recedes from its natural Condition, the more prejudicial is Anger, and attended with the more dangerous Symptoms.

Lastly, By increasing the Motion of the Fluid, or the Spasms of the fibrous Parts, by means of Anger, a larger Quantity of Blood is propelled with an Impetus to certain Parts; whence it happens, that they are too much distended, and the Orifices of the Veins distributed there opened. It is evident from Experience, that Anger has a great Tendency to excite enormous Hemorrhages, either from the Nose, the Aperture of the Pulmonary Artery, the Veins of the Anus, or, in Women, from the Uterus, especially in those previously accustomed and disposed to such Evacuations. Thus, if any one in his Youth has been subject to Hemorrhages of the Nose, a violent Sally of Anger soon makes his Disorder recur; for it is well known, that, upon the Approach of this Passion, the Countenance immediately becomes red, the Veins of the Head, especially those of the Forehead, are preternaturally tumefied, and the Blood is often, in an Instant, discharged in great Plenty from the Nose. I have likewise seen Women, who, in consequence of a Sally of Passion, have been seized with Hemorrhages of the Uterus, or of the Nose: And this too is the Reason why, in old and plethoric Persons, a violent Passion often produces a sanguine Apoplexy, which arises from a Rupture of the small Arteries of the Plexus Choroides in the Head. But there never readily happens an extraordinary Collection of Blood, and an unbounded Effusion of it, unless from a spasmodic, and that, too, a violent Stricture of the nervous and muscular Parts.

Having thus consider'd the Effects of Anger, with the Manner of its operating, we come now to the principal Point proposed; which was to shew, why Cathartics and Emetics are so prejudicial in the Passion of Anger, that they may, with the strictest Justice, be termed Poisons. But, before we determine this, our Design obliges us to say somewhat of the Nature of Poison, and the Method of its operating, lest, by a Neglect of this kind, a Foundation should be laid for various Errors and Mistakes.

By Poison, then, in this Place, we mean a caustic Matter, furnished with a very fine, volatile, and acrid Salt, which, in a small Quantity, by exciting enormous Spasms in the Stomach and Intestines, quickly induces a Train of dreadful Symptoms, perverts and destroys the whole Oeconomy of the vital Motions, leaving Signs of a fatal Mortification in the Carcase of the Patient. True Poisons, therefore, have, for the Foundation of their Activity, a certain fine, acrid, and highly caustic Salt, which, insinuating itself deeply into the membranous and nervous Fibres of the Stomach and Intestines, lacerates, corrodes, inflames, and spasmodically constricts them: But Poison, when exhibited in a small Quantity, quickly proves mortal; which must undoubtedly proceed from the violent and spasmodic Strictures of the nervous and membranous Systems in the whole Body, by which the Influx of the nervous Fluid, and thinner Blood, into the Organs of Motion and Sensation, upon the Cessation of which all Strength, Tone, and Motion of the Parts, are lost, is partly intercepted, and partly forced in a greater Quantity to other Places.

The Symptoms excited by Poison are highly violent, and entirely owing to the Spasms, which not only affect the Stomach and Intestines, but are, also, propagated to other Parts endued with more delicate Sensation and Motion: Hence, from swallowing Poison, are produced Cephalalgias, Nauseas, Vomings, violent Gripes, Diarrhoeas, or an obstinate Constiveness, Hiccups, violent Stricture of the Thorax, Difficulty of Breathing, and the

the utmost Uneasiness of the Præcordia, a Loss of Strength, a Syncope, accompanied with Coldness of the Extremities, and a cold Sweat; a weak, quick, and plainly intermitting Pulse, Convulsions, Epilepsies, Inquietudes, and Deliriums: These are the most general and usual Symptoms produced by Poisons. Upon opening the Bodies of Persons cut off by Poison, there immediately appears a Swelling of the whole Abdomen; and Spots of a purple or blackish Colour are discover'd in the Stomach, which is corroded, and sometimes perforated; together with some other Phenomena. This much shall suffice, with respect to Poison properly so called: For a more explicit Account, the Reader may consult *Hoffman's Pathologia Rationalis, Tom. 2. Part. 2. Cap. 2.* where the Doctrine of Poisons is expressly handled.

If, therefore, we duly weigh and consider the Effects of Emetics taken after a Transport of Anger, it will appear very evident, that they exert on the human Body no other Influence than that of real Poison; since all Emetics, especially those prepared of Antimony, operate by a subtle, acrid, caustic, inflaming Salt, which, adhering to the membranous and nervous Coats of the Stomach and Duodenum, corrodes and spasmodically constricts them. Besides, when exhibited in a somewhat larger Quantity, they quickly prove mortal, when the Stomach is disorder'd: Instances of which frequently occur, in the Writings of practical Physicians.

If we examine accurately into the various Symptoms produced by the Exhibition of Emetics, they are found not to be unlike those excited by Poison, properly so called: For there immediately appear Anxieties, and violent Strictures of the Præcordia, an exquisite Heat about the Region of the Stomach, vain Efforts to vomit; the extreme Parts grow cold, begin to tremble, and be convulsed; a cold Sweat seizes the Head or Breast; Respiration is perform'd with Difficulty; the Patient is deprived of Sleep, tosses about, and is very restless: To these Symptoms is added, an uncommon Loss of Strength; and the Patient is either afflicted with an obstinate Costiveness, or an uncommon Flux; the Pulse is either quick, weak, or plainly intermitting, the Mind becomes desultory and unhing'd; Convulsions, and other Symptoms of a like Nature, happen. It is certain, that these mortal Symptoms proceed from violent Spasms, which throw almost the whole System of the membranous Parts into violent Excitations and Convulsions; whence the poisonous Quality of Emetics, after Anger, is sufficiently obvious: Besides, upon opening the Bodies of those cut off by Poison, there appear undoubted Marks of a Violence done by some Substance of a virulent Quality, as is evident from the Dissection of such Persons, since the Duodenum, and Bottom of the Stomach, are observed very much inflam'd, and full of Spots, partly of a redish, and partly of a blackish Colour.

Violent and strong Cathartics, after the Transports of Anger, are equally dangerous; since they prove mortal in the same manner with Emetics, or even with Poison properly so called, as they are, in like manner, furnished with a subtle, caustic, and penetrating Salt, and, by exciting Spasms, create Inflammations in the Stomach and Intestines, produce violent Symptoms, quickly destroy the Patient, and, after Death, leave Signs of a fatal Mortification in the Stomach and Intestines. Since, therefore, Emetics and Cathartics, exhibited after the violent Transports of Anger, produce Spasms, and not only excite, but increase the Inflammation; since they, also, bring on other Symptoms usually induced by Poison; very soon put an End to Life; and, after Death, leave in the Body Marks like those common to Persons cut off by Poison; hence we may reasonably conclude, that both emetic and purgative Medicines may be esteem'd poisonous, when given to Persons after the Transports of Anger.

Emetics therefore, and drastic Purges, after Anger, are highly detrimental, and, for the most part, kill the Patient. For, if we recollect from the preceding Observations, that Anger throws the Stomach, Duodenum, and hepatic Ducts, into Spasms, we may hence, without the least Hesitation, infer, that Vomits, in such a Case, are by no means proper, since they irritate the tender Fibres of the Stomach, but lately disorder'd by the influence of Anger, to more terrible Spasms, and excite a more violent Inflammation, which is hardly curable by the utmost Skill and Judgment of the Physician. Let Physicians then consider, how improperly, preposterously, and imprudently, they act, when they disturb and exasperate the Stomach, already too much disorder'd with Anger, by Emetics: For these Remedies are, in such a Case, so far from being serviceable, that they rather add to the Acuteness of the Pain, and increase the Disease. Let us suppose, that Nature herself seems disposed and inclined to Vomiting, and is in a manner urged and stimulated to it by a strong Contraction of the Pylorus: Let us, also, suppose, that the Patients very earnestly desire this dubious Kind of Remedy, and place great Confidence in it, persuading themselves, that, by ejecting and discharging this heavy Burden out of the Stomach, they shall immediately grow better: Yet these very things, which might encourage an unvary Physician to give a Vomit, ought rather to convince the prudent, sagacious, understanding Practi-

tioner, that he should, in such a Case, by all means reject Emetics, and abstain from them, as he would from Poison.

Anger, by means of the subsequent Use of Emetics and Cathartics, is most of all prejudicial to those who are subject to hypochondriac and hysteric Spasms, or those who are afflicted with a Cardialgia. The Reason of this seems very plain, since such Patients are weaken'd by the spasmodic Stricture, with which the interior nervous Parts are affected, or have the Stomach, with the annexed Intestines, disposed to an Inflammation: If, therefore, such Persons are seized with a Fit of Anger, which makes its Havock by Spasms, the spasmodic Constrictions of the Stomach must necessarily be increased; and their Violence is so far from being appeased by the Addition of an Emetic or Cathartic, that, by this Method, the Way is rather paved to an invincible Disorder, and total Destruction of the Body. The utmost Care then must be taken, not to prescribe such Medicines to Persons thus debilitated, unless we wish for a fatal Event.

For the same Reason Emetics, and other strong Evacuants, are very detrimental, if given about the Paroxysms of intermitting Fevers, especially when preceded by Anger, because, at that time, the Stomach and Primæ Viæ being agitated by Spasms, the Patient is seized with a Nausea, and Inclination to vomit. Besides, Anger, and Medicines of a purgative and cathartic Quality, are noxious to all weak Persons. Thus have I observed, that those, who had before thoroughly purged their Bodies with Laxatives, Purgatives, Barks, and medicinal Waters, and, by that means, contracted a very great Weakness of the Stomach, have become very bad by taking Emetics or Cathartics after a Fit of Anger, and, in a very short time, expired under a most terrible Train of Symptoms. The Case is the same in Women after Delivery: For I knew a Woman, who, on the third Day after her Delivery, being in a violent Passion, took a Purge of the drastic Kind; and within two Days, notwithstanding the Application of all the best Remedies, she miserably perish'd.

Besides, Anger, and Emetics, or Cathartics, are extremely prejudicial to Women, about the time of their menstrual Discharge; and likewise to Men, who are accustomed to hæmorrhoidal Discharges, and wait for their Approaches: For, since these usual and salutary Discharges from the Uterus, and hæmorrhoidal Veins, are always accompanied with Spasms, it is evident, that Emetics and Cathartics are, at that time, very detrimental, especially if given after a Fit of Anger. I have seen dreadful Symptoms produced by Emetics, tho' not of a very drastic Nature, given about the time of the Menses. In Persons afflicted with the Hæmorrhoids, a strong Vomit has excited Abscesses with a slow Fever. When an Accumulation of Blood tends to the Breast, a dangerous Hæmoptysis is often produced by a strong Vomit. Anger, and strong Evacuants, are likewise very hurtful to those, who, after drinking plentifully of Wine, have endeavoured to extinguish the Heat of their Body by large Draughts of any cold Liquor; for they easily produce Spasms in the Stomach, and its Right Part the Pylorus. In such Cases Emetics immediately produce intolerable Anxieties, and continual Watchings. These are succeeded by an intolerable Loss of Strength, accompanied with Inquietudes, Tossings of the Body, and a Coldness of the Extremities.

I shall now subjoin some Cautions for preventing the Misfortunes generally subsequent to Anger, especially when of the violent Kind. For this Purpose, then, the prudent Physician should, by all means, allay and soothe the Spasms excited in the Stomach and Duodenum, reduce the Blood and Humours to an equable Motion, and correct their Acrimony, if they have any.

For this Purpose I recommend, besides Infusions of the Herbs *Paul's Betony*, *Daisies*, common and *Roman Chamomile*, and *Fennel-seeds*, the bezoardic Powders, and those of the nitrous and cinnabarine Kind, or Nitre mixed with a small Quantity of Camphire, or the following Mixture.

Take of the Spiritus Nitri dulcis, or the Spiritus Vitrioli dulcis, and of the Essence of Castor, each one Dram; and of Camphire, three Grains: Of this Mixture, twenty or thirty Drops may be exhibited.

These two Remedies are great Preservatives against Inflammations, from whatever Cause they proceed. If, in consequence of a Fit of Anger, the Bile is convey'd in too large a Quantity to the Intestines, then Powder of Rhubarb, mixt with Nitre and Crabs-eyes, is highly beneficial: For by this means the Acrimony of the Bile is not only corrected, but, also, gently eliminated. To this may be added the Magnesia alba, which not only greatly corrects, but, also, mildly eliminates the acrimonious Humours. To these may be added the Essence of Orange-peel duly prepared, the Stomachic Elixir of *Michaeli*, or my Stomachic Elixir, mixed with the anodyne mineral Liquor. *Hoffman*,

IRAIBA. The Name of a Species of Palm, which grows in *Brasil. Raii Hist. Plant.*

IRINON. See IRIS.

IRIO. A Name for the *Erysimum, vulgare*.

IRIPA.

IRIPA. The Name of a tall Tree, which grows about *Repolyn*, and in other Parts of *Malabar*; call'd *Malus Indica*, *pomo cucurbitaeformi*, *monopyreno*.

The Roots of this Tree have a cathartic Virtue. Of the Leaves boiled in Cow's Urine, with an Addition of Honey, is prepared a Potion, which is said to cure the Itch, Leprosy, and other cutaneous Affections. Of the same boiled in sweet Milk, with the Leaves of *Mangos*, they prepare an Apozem, which cures the Jaundice, Asthma, and the vitiated Fermentation of the Aliments in the Stomach, with the Pain of the Head caused thereby: Of the Fruit is prepared an Oil for the Itch, and other cutaneous Affections. *Rail H. P.*

IRIS.

The Characters are;

Under the Flowers are two membranaceous Calyces, surrounding one another like Sheaths. The Flower is hexapetalous; three of the Petals are bifid and erect, the other three are reflexed downwards. Upon the under Part of the lower Petals is placed a large Congeries of little Tubes, resembling a Beard. From the very Bottom arises a Male Stamen, carefully defended by an hollow petaloidal Case. This Flower grows on the Apex of the Ovary, which produces those Beards and Tube-like Cases: Thence the Flower seems enneapetalous, or consisting of nine Petals. The Ovary grows at the End of the Pedicle, and becomes an oblong Fruit, full of Seeds. The Root is fleshy, oblong, and creeping.

Boerhaave mentions twenty-four Species of this Plant; which are,

1. *Iris*; *hortensis*; *latifolia*; *petalis pendulis purpureo-violaceis, erectis caeruleis*.
2. *Iris*; *hortensis*; *latifolia*; *præcox purpurea*.
3. *Iris*; *hortensis*; *latifolia*. *Boerb. Ind. A. 2. 124. Iris vulgaris nostras, hortensis*. *Offic. Iris vulgaris*. *Ger. 46. Emac. 50. Rail Hist. 2. 1286. Iris purpurea sive vulgaris*. *Park. Parad. 131. Iris vulgaris Germanica sive sylvestris*. *C. B. P. 30. Tourn. Inst. 358. Iris vulgaris violacea sive purpurea, hortensis & sylvestris*. *J. B. 2. 709. COMMON FLOWER-DE-LUCE.*

The Roots of this common Flower-de-luce spread themselves pretty much on the Surface of the Earth, being of a reddish-brown Colour on the Outside, and whitish within, round, an Inch and more in Thickness, and shooting out long Fibres. The Leaves are nervous, broad and flat, thickest in the middle, with thin Edges, like a Sword; they grow in thick Clumps together; the Flowers are made of nine Leaves, of a purplish-blue Colour. The Seed grows in large triangular Pods, full of flat angular Seed. It grows with us only in Gardens, and flowers in *May* and *June*.

The Juice of the Root, which is the only Part used, is a strong Errhine: Being snuff'd up the Nostrils, it purges the Head, and clears the Brain of thin, serous, phlegmatic Humours. The same, likewise, or a strong Decoction of the Root, given inwardly, is a strong Vomit, and accounted good for the Dropsy, Jaundice, and Agues; but, because it very much vellicates or offends the Stomach, it is rarely used. *Miller's Bot.*

Externally applied, it cures impetiginous Disorders, and other Stains of the Skin. *Dale.*

Lemery says, the Dose of the Juice of the Root is from two Drams to an Ounce and an half.

4. *Iris*; *hortensis*; *latifolia*; *petalis repandis ex atro purpureo & albo striatim variis, erectis vero fuscis obsolete*.
5. *Iris*; *Dalmatica*; *major*. *C. B. P. 31.*
6. *Iris*, *alba*; *Florentina*. *C. B. P. 31. Park. Parad. 130. Tourn. Inst. 358. Boerb. Ind. A. 2. 124. Iris Florentina, Iris Illyrica*. *Offic. Iris Florentina*. *Ger. 47. Emac. 52. Iris flore albo*. *J. B. 2. 719. Rail Hist. 2. 1180. FLORENTINE ORRIS. Dale, p. 247.*

This *Iris* has a thick, tuberous, knobbed Root, of a white Colour in the Inside, shooting out Fibres on all Sides; which, when they are pared off, make the dry Root appear full of round Spots. The Leaves are long and flat, like other Flower-de-luces, bearing at the Top of the round, smooth Stalks, two or three white Flowers, which are inclosed, before their opening, in thin green Husks. The Flowers are pretty large, and are made of nine Leaves, like the former. They have the like Seed-vessels. It is found wild about *Florence* in *Italy*; but with us is only nursed up in Gardens, and flowers in *June*.

The Root only is used, being brought dry from *Leghorn*, of a firm Texture, and a pure white Colour, having a pleasant, soft, sweet Scent, somewhat like Raspberries.

It is attenuant, emollient, and peccoral, good for Disorders of the Lungs caused by sharp Humours falling on the tender Vesicle; it helps Coughs, Hoarseness, and Soreness at the Stomach; it is likewise commended against the Gripes in Children, and to bring down the obstructed *Menses*; outwardly it is used in Perfumes, sweet Bags, and Hair Powder: It is an Ingredient in the *Theriac Andromachi* and *Mithridate*. *Miller's Bot. Off.*

It is reckoned proper to attenuate the Lympha, which stuffs the Bronchia and Glands of the Lurellines. It is often joined with Hydragogues in beginning Dropsies, to scour the Glands of the Mesentery; and a kind of Ratafia is likewise made of it for the same Purpose. *Geoffroy.*

Externally applied, it is good for Freckles, and Spots of the Skin; and it is esteemed good for a fetid Breath. *Schroder.*

7. *Iris*; *Sufiana*; *flore maximo, ex albo nigricante*. *C. B. P. 31.*
8. *Iris*; *latifolia*; *petalis repandis atropurpureis viciis, erectis obsolete purpurascensibus fere fuscis*.
9. *Iris*; *folio lato*; *rugoso*; *florum petalis repandis ex purpureo fordido, pallido, & luteo variis; erectis vero obsolete & squallide lutescentibus*.

10. *Iris*; *latifolia*; *Germanica*; *odore Sambuci*. *C. B. P. 31.*
11. *Iris*; *latifolia*; *Pannonica*; *colore multiplici*. *C. B. P. 31.*
12. *Iris*; *folio lato*; *rugoso*; *florum petalis repandis obsolete luteis, pallidis; purpureis, striatis, petalis, erectis obsolete luteis*.
13. *Iris*; *lativa*; *lutea*. *C. B. P. 32.*
14. *Iris*; *latifolia*; *candida*; *purpureis venis distincta*. *C. B. P. 32.*
15. *Iris*; *folio lato*; *rugoso*; *petalis repandis purpureis, erectis candidis*.

16. *Iris*; *pratensis*; *angustifolia*; *non foetida*; *altior*. *C. B. P. 32.*
17. *Iris*; *angustifolia*; *bicolor*. *C. B. P. 33.*
18. *Iris*; *angustifolia*; *flore caeruleo, striato*.
19. *Iris*; *angustifolia*; *hosculi petalis repandis ex luteo & purpureo unimque variis, erectis purpureis*.
20. *Iris*; *humilis*; *flore atropurpureo*. *H. I.*
21. *Iris*; *humilis*; *minor*; *flore purpureo*. *T. 361.*
22. *Iris*; *humilis*; *minor*; *flore purpureo flavescens*. *T. 362.*
23. *Iris*; *humilis*; *segmentis tribus inferioribus ex ochroleuco, albo & viciis purpureo variis, superioribus albis*.
24. *Iris*; *humilis*; *segmentis tribus inferioribus ex viridi & pallido variis, superioribus albis*. *Boerb. Ind. alt. Plant. Vol. 2. p. 123.*

According to *Dioscorides*, the best *Iris* grows in *Illyria* and *Macedonia*; and of this the choicest is what has a thick Root, appearing as if it were imperfect, difficult to be broken, of a reddish Colour, extremely fragrant, of a pretty bitter Taste, of a fresh Smell, without the least Sense of Mouldiness, and what excites Sneezing, when snuffed. The next in Goodness and Virtues, is the *African Iris*, which is white, and of a bitter Taste; the Roots, when old, are subject to be Worm-eaten, though, at the same time, they are more fragrant.

All the Species of *Iris* are of an heating and attenuating Quality, and effectual in Coughs, on account of attenuating those Humidities which are difficult to be expectorated. Seven Drams of the Root, taken in Hydromel, are a Purge for gross and bilious Humours. The *Iris* has, also, in hypnotic Virtue, excites Tears, and cures the Gripes; taken in Vinegar, it cures the Bites of venomous Animals, and is a Remedy for Disorders of the Spleen, Convulsions, extreme Coldness, Rigors, and an involuntary Efflux of the Semen; taken in Wine, it provokes the Menstrue. A Decoction of the Roots makes a proper Fomentation in Disorders incident to Women, as mollifying and opening the Parts about the Region of the Uterus. A Clyster of the same relieves under the Sciatica. The *Iris* is, also, incarning; and fills up Fistulas, and other sinuous Ulcers, with Flesh. The Roots apply'd with Honey, by way of a Collyrium, or Pessary, extract the Fetus; boiled, and apply'd to the Place, they mollify strumous and old scirrhus Swellings; being dry'd, and used with Honey, they cleanse and incarn them, and cover bare Bones with Flesh; made into a Cataplasm with Vinegar, and Oil of Roses, they cure the Cephalalgia; apply'd with Fleishe-ore, and double the Quantity of Honey, they absterge Freckles and Sunburns: They are Ingredients in Pessaries, Malagmas, and Acopa; and, in short, are useful on many Accounts. *Dioscorides, Lib. 1. Cap. 1.*

In *Dioscorides, Lib. 1. Cap. 66.* we have a Description of what he calls a *Syrpsis*, [*σῦψις*, *Spissamentum*, an Inspissation] of *Irinum*, or the Oil of *Iris*; as follows.

Take of *Spatha*, [*σπάθα*, the Involucrum, or Cover of the Fruit of the Palm-tree, while yet in Flower, *Diosc. Lib. 1. Cap. 150.* See *PALMA*] very well bruised, six Pounds eight Ounces; and put them into seventy-three Pounds five Ounces of Oil, mix'd with five Pints of Water; and boil them together in a Copper-vessel, till they smell of the *Spatha*; after which, strain them into a Vessel, whose Inside is rubbed over with Honey. With this Oil, thus impregnated with an Aromatic, is the first *Irinum* tempered, or prepared, the *Iris* being macerated in the inspissated Oil, in the Manner described below.

Another Way of preparing the *Syrpsis* of the *Irinum* is, to boil five Pounds two Ounces of *Xyloballumum*, bruised as was directed for the *Spatha* in seventy Pounds five Ounces of Oil; after which take out the *Xyloballumum*, and put in of *Calamus* bruised, nine Pounds ten Ounces, with a Lump [*ζύμα*] of Myrrh, washed over with old sweet-scented Wine. This done, take of this inspissated and aromatized Oil, fourteen Pounds, with an equal Weight of bruised *Iris*, to be macerated for two Days and two Nights in the Oil, and then very strongly expressed. If you would have it made stronger, add the same Weight of *Iris* a second or third time, and macerate and strain as before. Much the best of this kind of Preparation is, what smells of nothing but

but the Iris; and such is made at Perga in Pamphylia, and in Elis in Achaia.

This Scyphis of Irinum is heating and emollient, and cleanses crusty, putrid, and foul Ulcers. It is adapted, also, to uterine Affections, such as Inflammations and Stoppages; it expels the Fœtus, opens the Orifices of the Hæmorrhoids, and with Vinegar, Rue, and bitter Almonds, cures the Ringing of the Ears; it is effectual against inveterate Distillations, and the Ozoena, the Nostrils being anointed therewith; the Quantity of a Cyathus, taken inwardly, serves for a Purge; it gives Relief, also, under the Iliac Passion, and provokes Urine. It facilitates Vomiting, being rub'd on the Fingers, or any other Emetery [*ἐμετήριον*, something thrust into the Mouth to promote Vomiting]. It is used, also, as a Litus for the Quinsy, and, with Hydromel, as a Gargaism for the Roughness of the Aspera Arteria; and it serves as an Antidote for those who have eaten Hemlock, poisonous Mushrooms, or Coriander. *Dioscorides, Lib. 1. Cap. 66.*

Actius, Tertatib. 1. Serm. 1. describes another Oil of Orris.

Besides the foregoing Species of Iris, Dale mentions the two following; which are,

1. *Iris lutea palustris.* See *Acorus adulterinus*.

2. *Chamaeiris.* Offic. *Chamaeiris tenuifolia.* Ger. 52. Emac. 56. *Chamaeiris angustifolia major & minor.* Park. Parad. 187. *Iris angustifolia Prunum redolens, major & minor.* C. B. Pin. 33. Tourn. Inst. 361. *Iris graminea, cui quotannis pereunt folia.* J. B. 2. 727. Raii Hist. 2. 1139. GRASS-LEAV'D FLOWER-DE-LUCE. It is cultivated in Gardens, and flowers in May; the Herb is in Use. It agrees in Virtues with the Iris; *bortensis*; *latifolia*; or common Flower-de-luce.

Iris bulbosa. A Name for several Sorts of Xiphium.

Iris Persica. A Name for the Xiphium; *Persicum*; *præcox*; *flore variegata*.

Iris tuberosa. A Name for the *Hermodactylus*; *folio quadrangulo*.

Iris fatilis. See XYRIS.

IRIS is, also, according to *Gorræus*, the Name of a Pastil, consisting of Saffron, Myrrh, and Alum.

IRIS is, moreover, the Name of a Species of Crystal.

IRIS, in Anatomy, is a Membrane of the Eye. See OCULUS.

Mr. Sharp gives the following Account of an Operation upon this Membrane, which he calls, *Cutting the Iris*.

There are two Cases, says he, where this Operation may be of some Service, one when the Cataract is from its Adhesion immoveable; and the other when the Pupil of the Eye is totally closed up by a Disorder of the muscular Fibres of the Iris, which, gradually contracting the Orifice, at last leaves the Membrane quite imperforate. This last Distemper has hitherto been deem'd incurable. The Adhesion of the Cataract I have considered as a Species of Blindness not to be relieved: But Mr. Cheselden has invented a Method of making an artificial Pupil, by slitting the Iris, which may relieve in both the Instances here stated.

In performing this Operation, the Patient must be placed as for Couching, and the Eye kept open, and fixed by the Speculum Oculi, which is absolutely necessary here, for the very Reason I would discard it in the other, since the Placidity of the Membrane from the Issue of the aqueous Humour would take away its proper Resistance to the Knife, and make it, instead of being cut through, tear from the Ligamentum Ciliare; then, introducing the Knife in the same Part of the Conjunctiva you wound in Couching, insinuate it with its Blade held horizontally, and the Back of it towards you, between the Ligamentum Ciliare, and Circumference of the Iris into the anterior Chamber of the Eye; and, after it is advanced into the farther Side of it, make your Incision quite through the Membrane; and, if the Operation succeeds, it will, upon wounding, fly open, and appear a large Orifice, tho' not so wide as it becomes afterwards.

The Place to be opened in the Iris, will be according to the Nature of the Disease: If the Membrane itself be only affected with a Contraction, the middle Part of it, which is the natural Situation of the Pupil, must be cut; but, if there be a Cataract, the Incision must be made above or below the Cataract, though I think it more eligible to make it above.

The contracted Iris, from a paralytic Disorder, is so often complicated with an Affection of the Retina, that the Success is very precarious in this Case. This Operation, by what I have seen, has answered best in Adhesions of the crystalline Humour, though, to speak truly, but very seldom even there. As I would not mislead any one in an Operation not yet much known in the World, I do confess, that either the Danger of the Iris, separating from the Ligamentum Ciliare, or of the Wound not enlarging sufficiently, do, upon the Whole, make the Event very doubtful. I once perform'd it with tolerable Success, and, a few Months after, the very Orifice I had made contracted, and brought on Blindness again.

I have not here once used the Word Uvea, but have made mention of the Ligamentum Ciliare; both which Parts are but little understood, for want of proper Explanation; but which must be rightly conceived of, in order to understand what has been said.

The generality of Anatomists call that Membrane, which I have spoke of under the Name of Iris, the Uvea, and its anterior Lamina, the Iris: Others, again, call the Membrane, Uvea; and the Colour of it, Iris: But both one and the other Distinction confound Learners exceedingly, and take their Rise from a Want of proper Attention to the History of Anatomy. The Antients, who have given most of the Names we now employ in the Description of the Eye, were vers'd principally, if not altogether, in the Dissection of Brutes; among which, those of the graminivorous Kind have a party-coloured Choroides, one half of it being dark, and the other of a light shining Green: This last, from its Resemblance to an unripe Grape, was call'd the Uvea; but the succeeding Writers, among the Moderns, applying themselves to human Dissections only, and not duly considering the Difference of the human Choroides, which is nearly of an uniform Colour, and of that above described, have retained the Appellation, tho' we have not the Thing. Hence has arose the great Variety of Misapplication of this Word, which ought no more to be spoke of in the Anatomy of the human Eye, than the Tunica Nicotiana, which is proper to certain Beasts and Birds.

The Ligamentum Ciliare is that circular Line on the Globe of the Eye, where the Sclerotis, Choroides, Retina, Cornea, Processus Ciliares, and Iris, terminate and unite together, forming a whitish Ring somewhat denser than any other Part of the Coats; but, since the Institution of this Term, the Description of the Part it implies has been very much neglected, and the Term itself confounded with the Processus Ciliares: Wherefore it was necessary to define it, that the Process of the Operation of the Iris might be better understood. Sharp.

IRREPTIO. See EISBOLE.

IRUCAHA. The Name of a large Tree, which grows in the Island of Maraguan. It bears a Fruit shaped like a Pear, with a yellowish Rind, and Pulp within of a good Taste, and esteemed very nutritive.

IS, *ἰς*. A Fibre, the Plural of which is *ives*, by which, it is pretended that *Hippocrates* meant equally a Fibre and a Nerve. "Some (says *Erotian*) thinks that this Word signifies a Nerve; "others explain it only of the Fibres of which the Nerves are "composed." The Greek Authors who have wrote on Plants, have called by this Name the Nerves, or small Threads, which appear on the Back of the Leaves, and the Filaments at the Extremities of the Roots. Those who have treated of the Structure and Composition of animal Bodies, have given the same to the small Threads of the Flesh, and other Parts, which the *Latins* have rendered by the Word *Fibra*. No one can deny that *Hippocrates* hath used the same Word in this Sense; as, for Instance, when he observes, that the Spleen is full of Fibres. He has, also, observed "the Fibres which are in the Blood:" But it is pretended, that by those, also, he meant the Nerves; for which Purpose there is a Passage quoted from *Hippocrates*, in which it is said, (*Lib. de Ossium Natura*) that "The Heart "has Nerves, or Fibres," which "come from every Part of "the Body." In this Passage he makes use of the Word *ἰσῖας*, which is not read elsewhere; but *Foesius* is for having it read *ἰνας*, which last Word may be as properly translated *Fibre*, as *Nerve*. What might incline one to the second Signification is, what is added as a Proof, or Confirmation, of what is said concerning the Heart, that "the Seat of Sensation is rather "about the Thorax, than any other Part of the Body;" because this has some Relation to the Opinion of those who make the Nerves to come from the Heart. But the Consequence is not just; for they who own the Heart as the Origin of the Nerves, do not, on that Account, look upon the Nerves as the Organs of Sensation. Besides, it is possible, that neither the common Reading, nor that of *Foesius*, may be good, and that we ought rather to read it *ἰνῖας*, *habenās*, changing a Letter, which alters nothing in the antient Pronunciation. The last nam'd Author translates this Passage thus; "The Heart is "situated, as it were, in the Straights of a Passage, in order to "take hold of the Reins, for the Conduct and Management "of the whole Body. For this Reason the Seat of Sensation is "lodged about the Thorax or Breast, rather than in any other "Part. The Changes of Colour are, also, produced in the "Countenance, according as the Heart constricts or relaxes the "Veins; when it relaxes them, one becomes red, and assumes a "fresh lively Colour; when, on the contrary, it constricts them, "one becomes pale and livid."

ISADA. A Name by which the *Spaniards* and *Portuguese* call the Lapis Nephriticus.

ISALE. The same as IXALE; which see.

ISAROS, *ἰσαρος*. A Name for the ARUM. *Oribasii Collect. Medicin. Lib. 11.*

ISATIS.

The Characters are;

The Fruit is shap'd like a Tongue, broad, compress'd at the Edges, unicapular, gaping two Ways, and containing a Seed, which is generally of an oblong Figure.

Boerhaave mentions three Species of this Plant; which are,

1. *Isatis; fativa; live latifolia.* C. B. P. 113. *Tourn. Inst. 211. Borrb. Ind. A. 2. 3. Isatis, Glastrum.* Offic. *Isatis, frus Glastrum*

Hum fativum. J. B. 2. 909. *Glastrum fativum*. Ger. 394. Emac. 491. Park. Theat. 600. Raii Hist. 1. 842. Synop. 3. 307. WOAD. Dale.

The lower Leaves of Woad are large, long, and smooth, broadest and round-pointed toward the End, of a blueish-green Colour; the Stalks grow to be about a Yard high, thickly beset with narrow sharp-pointed Leaves, set on without Foot-stalks, and, as it were, encompassing them with two slender Auricles. The Flowers are numerous, growing on the Tops of the Stalks Umbel-fashion, consisting of four small yellow Leaves apiece; the Seed is long, slender, and flat, in Shape like the Seed of the Ash-keys. The Root is thick and woody, sinking deep in the Earth. It is found wild in divers Places, but is frequently sown in the Fields for the Use of the Dyers, being the principal Ingredient they dye their Blues with. The ancient Britons us'd to stain their Bodies with it, to make themselves appear terrible.

Woad is restraining and drying, and sometimes us'd to stop both inward and outward Bleedings: It is, also, applied, with good Success, for Ruptures and Strains, and to strengthen the Joints. It is an Ingredient in the *Emplastrum ad Herniam*. Miller's Bot. Off.

Hippocrates, *Lib. de Ulceribus*, advises the Application of the bruised Leaves of Woad, together with Linseed, by way of Cataplasm, to Ulcers, when there is any Danger of an Erysipelas; or a Cataplasm of Linseed, moisten'd with the Juice of Woad.

It is esteem'd an excellent Vulnerary.

2. *Ilatis*; *sylvestris*; vel *angustifolia*. C. B. P. 113.

Dr. Wedel, Professor of Physic in the University of Jena, has obtain'd true volatile Salt from this Plant, only by Fermentation, without the Assistance of Fire. Martyn's Tournefort.

3. *Ilatis*; *Dalmatica*. Bobart. Boerh. Ind. alt. Plant. Vol. 2. P. 3.

ISATODES, *ισατοδης*. Of the Colour of Woad. This is us'd by Hippocrates, as an Epithet for Bile, and for Stools; and this Colour is a Sign of an extreme Malignity of the Bile.

ISCA, *ισκα*. A sort of fungous Excrecence, which adheres to the Oak and Hazel, and was employ'd as a Caustic by the Antients, as the Moderns use the Moxa.

ISCHÆMON, from *ισχω*, to restrain, and *αιμα*, Blood. A Name for any Medicine which restrains or stops Bleeding.

ISCHAS. A dry'd Fig.

ISCHIAS, ISCHIADICUS, *ισχιας*, *ισχιαδικος*, have a physiological and pathological Signification: In the former Sense the two crural Veins are call'd the Greater and Lesser Ischias. See VENA. Pathologically, *Ischias*, and *Morbus Ischiadicus*, signify a Disease, or Pain of the Hip, being a Species of Arthritis, seated in the Joint of the Hip. See SCIATICA.

Hence *φθις ισχιαδικη*, *Tubercula Coxarum*, in Hippocrates, *Coat. Prenot.* is a Consumption, or Wasting, of the Thigh, and Leg, from an Abscess, or Flux of Humours, fixed on the Hip.

ISCHIAS, in Botany, is a Name for the *Tizhymalus*; *tuberosa*; *pyriformi radice*.

ISCHIUM, *ισχιον*. The Name of a Bone, describ'd under the Article INNOMINATA OSSA. But the Ligament which retains the Neck of the Femur in the Acetabulum, was, likewise, call'd *Ischion*, by the Antients, according to Hesiychius. And Hippocrates, in his Treatise de Articulis, seems to call the entire Articulation at the Hip, or, perhaps, the Head of the Femur, *Ischion*.

ISCHNOPHONIA, *ισχνοφωνια*, from *ισχυς*, slender, and *φωνη*, the Voice. An Exility or Shrillness of Voice: But more frequently signifies a Hesitation of the Speech, or Stammering.

ISCHURETICA, according to Blancard, are Medicines which cure a Suppression of Urine.

ISCHURIA, *ισχυρια*, from *ισχω*, to retain, and *ουρον*, Urine. An Ischury, or Suppression of Urine. See the Articles CALCULUS, CATHETERISMUS, and URINA.

Women with Child are often troubled with an entire Suppression of Urine, the most general Causes of which are Gravel and Stone; an Inflammation of the Neck of the Bladder, owing to violent Pains occasioned by the Piles, or a Strangulation of the Neck of the Bladder betwixt the Os Pubis and Head of the Child, when it is sunk down very low.

In the two first Cases, general Remedies, as Bleeding, emollient Clysters, and gentle Purges with softening Decoctions, are of great Use; but nothing gives so speedy a Relief as a Catheter. But when the Head of the Child is sunk very low, and pressed strongly against the Os Pubis, the Catheter will not pass; and then the Remedy is, to put back the Child's Head, which immediately gives Liberty to the Urine to come away without using the Catheter.

La Motte gives an Instance of a Woman's being greatly reliev'd in a Suppression of Urine, caus'd by the Piles, by a Semicupulum made of Marshmallows, Mallows, Violet-leaves, and Chamomile, with an Addition of a small Quantity of new Milk: In this the Woman sat an Hour, Night and Morning, for two or three Days, in a Vessel, contriv'd in such a manner

as her Legs were out of the Bath, whilst she was immersed in it, above the lower Part of the Belly: But this was not done till after Bleeding, and some emollient Clysters.

La Motte says, that such a Bath hath succeeded several times in the same Case, and that there is no Danger of a Miscarriage from its Use.

La Motte makes a Distinction betwixt a Suppression and Retention of Urine. In a Retention of Urine the Patient has frequent Motions to make Water, without being able to do it. But in a total Suppression of Urine the Patient has seldom or never any Inclination to make Water; but, if she has any, does it in a Moment: And this last is much the most dangerous.

La Motte gives an Instance of a Woman, though not in Child-bed, who was seventeen Days without making a single Drop of Water, or having any Inclination to it. On the 18th Day in the Morning she discharged a great Quantity of Blood by the urinary Passages, which became more and more serous, till, at last, the Discharge was of Urine only, which continued three Hours; and after this she soon recovered.

The METHOD of discharging the URINE, by a PUNCTURE of the BLADDER.

Heister says, that, by a Puncture of the Peritonæum, we mean a Paracentesis of the Urethra and Bladder, for the Discharge of the Urine when it is suppressed. But, as this Perforation is made both in the Hypogastrium and Perinæum, it might, with more Propriety, be termed, a Puncture of the Bladder. An Operation of such Consequence, that if not seasonably and dextrously performed, the Patient must inevitably perish; but it is never undertaken, when Relief can be had from internal Medicines, or the Introduction of the Catheter. Now the Catheter cannot be introduced, 1. When the Neck of the Bladder is greatly inflamed; for that sometimes contracts the Urethra so closely, that this Instrument cannot possibly be passed through it; and Violence not only increases the Inflammation and Pain, but sometimes bruises the Part, and induces a Sphacelus, with consequent Death. 2. A Caruncle, Cicatrix, or hard Tubercle, may obstruct the Passage, 3. The Introduction of the Catheter in old Men is sometimes impracticable, from the Stricture, Shrinking, or Wrinkles of the Urethra. 4. From the Distention of its spongy Substance with Blood. 5. From a Scirrhus, or preternatural Tumor of the Prostate Gland, which Case occurred to Morgagni, Color, and once to myself, says Heister, in a Man at Helmstadt. Lastly, From a Stone lodged in the Neck of the Bladder. Upon these, and other such Occasions, immediate recourse must be had to this Operation, or the Patient will certainly perish.

We will now give a succinct Account of the several Methods of this Operation. Launay advises to place the Patient as for Lithotomy; then to introduce a grooved Catheter into the Bladder; and, next, to make an Incision in the Perinæum, cutting through the Urethra into the Groove; after which, he passes a Gorget through the Groove of the same Catheter; and then, he says, the Urine will discharge itself. But Launay immediately forgets, that this Paracentesis is only necessary when the Catheter cannot be conveyed into the Bladder.

We will proceed, therefore, to others. The first and most common Practice, both among the Antients and the Moderns, is to place the Patient on a Bed, or Table, and secure him by Assistants, as in cutting for the Stone; then the Operator makes an Incision on the Left Side of the Suture of the Perinæum, into the Bladder, with a small double-edged Knife (see Tab. XXII. Let. 1). An Efflux of the Urine will convince him, that he has entered that Receptacle; but he should not draw out his Knife, before he has introduced a Probe by the Side of it; then, extracting his Knife by the Side of that Probe, he must convey a Silver Tube, about four Inches long, (see Tab. XXIII. Let. P; or Tab. XLV. Fig. 3. or Tab. LIII. Fig. 4.) into the Bladder, which must be there secured by a flat Bandage carried round the Hips; and, after the Urine is discharged, be stop'd with a Tent, to prevent a continual Efflux. This Tent must be taken out when the Patient would make Water, and then inserted again. This must be continued, till the Inflammation, or other Disorders, are removed. But, indeed, the Method seems dangerous and cruel, because by thus unnecessarily wounding the Neck of the Bladder, and the Urethra, the Inflammation is generally increased, and the seminal Ducts in the Prostate very much injured.

I would, therefore, recommend an Incision in the same Part of the Perinæum, and with the same Instruments as in the Apparatus minor, or the lateral Method, curving into the Body of the Bladder, without injuring its Neck; after which, a Silver Tube may be introduced. For this neither injures the Sphincter of the Bladder, nor Urethra, nor increases the Inflammation, and the Wound heals with more Ease and Expedition.

But there is a third Method, preferable to either of the preceding, where the Perforation is made in the same Part, as in the second, but with the Trochar and Cannula (Tab. L. Fig. 3.) instead of the Incision-knife. When this Instrument has been passed

Passed into the Bladder, the Perforator is extracted, but the *Cannula* remains there, for the more ready Discharge of the Urine; by which means both the Operation and Cure are greatly facilitated. Nor is it improper to pass one or two Fingers into the Anus, for the better Direction of the Instrument into the Bladder, and the Preservation of the Rectum. *Garengeot* affirms, that nobody has wrote any thing concerning this Method; whereas *Riolanus* has proposed a *Paracentesis* either in the *Hypogastrium*, or *Perineum*, when the Knife should be forced laterally into the Bladder, till the Urine flowed: By this, he says, he has freed many from the most imminent Danger. *Thevenin*, likewise, proposed the same Puncture, though with a Knife, till the Urine followed. And I myself, says *Heister*, *Dionis*, and *Tolet*, have recommended this Practice; and *Morand*, in the Memoirs of the Royal Academy of Sciences, informs us, that *Chirac* preferred this to the ordinary Method.

Denys, a Lithotomist of *Leyden*, observing, that the Surgeon might thrust the Perforator too far, and incautiously wound the opposite Side of the Bladder, for want of knowing exactly when it was perforated, has contrived a Needle of another sort, (see *Tab. LIII. Fig. 3, 4, 5.*) inclosed in a silver Tube (*Fig. 3, 4.*). In the upper Part A A, are three Apertures, one of which is not seen in that Position; there are as many too in the lower B B, which are conceal'd (in *Fig. 3.*) by the Plate C C; but in *Fig. 5.* which represents the Perforator out of its *Cannula*, we may observe, that it is made like other Perforators, round below the triangular Point; but from D D, to the Beginning of its Handle E E, it is triangular, with three excavated Sides, which Sides of the Triangle D E should correspond with the Apertures of the *Cannula*, when the Perforator is thrust into it. Thus, as soon as the Instrument enters the Bladder, the Urine flows through the upper Apertures A A, into the lower ones, and gives speedy Intelligence of the Perforation; after which the Perforator is extracted, and the Urine discharged through the Tube still remaining there.

Some Authors, as *Tolet* and *Colot*, propose another Method of perforating the Bladder, much like that in the *Apparatus major*. Having disposed the Patient properly, they pass a grooved Catheter into the Urethra, till it meets with the Obstacle, which is generally near the Neck of the Bladder; then they make an Incision into the Urethra through the same Part of the *Perineum*, as in the *Apparatus major*, till the Point of the Knife reaches the Groove of the Catheter, but the Wound is not so large, as in Lithotomy: Thus of a Male they make a kind of Female Urethra; after which they pass a Conductor thro' this short Passage into the Bladder, and the Urine flows out. When the Urine is discharged, they convey a Tube through the Groove of the Conductor, and proceed as before. Both these Authors affirm, that this Division of the Urethra so near the Sphincter, relaxes that, and the Prostate, to such a Degree, that not only a Catheter, but a grooved Conductor, may be introduced; and *Colot* mentions many Patients, whom he has cured by this Practice, of Ulcers and Excrescencies of the Bladder, as well as a Suppression of Urine. I must, however, think the Methods proposed above more safe and easy, for the Cure of a simple *Ischuria*, because, passing Instruments through the contracted Neck of the Bladder, must occasion greater Pain, than a Perforation of the Receptacle itself.

But, in my Opinion, the most ready Method is, to proceed as in the high Operation for the Stone. The Perforator and *Cannula* is passed into the anterior Part of the Bladder, immediately above the Junction of the *Ossa Pubis*; then the former is extracted, and the latter remains, for the Discharge of the Urine, secured by a Bandage round the Body, that the Patient may, at Pleasure, retain or discharge his Urine, till the Cause is removed; then the Tube may be extracted, and the Wound healed by the Application of Balsam of *Cyprii*, and over this Lint, and a proper Plaster. Though this is seldom practised, I must, when nothing extraordinary forbids it, with *Rosset*, *Riolanus*, and *Tolet*, recommend it as very necessary, since it appears from anatomical Experiments, that the Bladder, distended with Wind or Water, may be thus safely perforated, and that it has been done by *Turbier*, *Meri*, *Douglas*, and *Middleton*.

When the Cause cannot be removed, in a Person advanced in Years, or when it proceeds from a *Callus* of the Bladder or Urethra, a Scirrhus of the Prostate, a large Stone, a paralytic Bladder, or some other obstinate Disorder, the Patient should always wear this Pipe, made to close with a Screw, that the Urine may not come away from him incessantly. But when it arises only from a Caruncle, or small Cicatrix, after the Operation, the Obstacle should be removed, and the Wound healed, as in Lithotomy. When it is caused by a *Purpus*, or putrid Excrescences, in the Bladder, they are often removed by suppurating and detaching Injections. Lastly, if the Neck of the Bladder is so violently inflamed, as to obstruct the natural Passage of the Urine, it will be proper, after the Operation, to bleed the Patient, and then administer Clysters, and to apply discutient Cataplasms to the Region of the Bladder, with cooling, internal Medicines, in order to dissipate the Inflammation

and Tumor; and, unless this is effected before the third Day, the Patient is seldom cured.

A Suppression of Urine is sometimes accompanied with a violent Inflammation of the *Scrotum*, which frequently turns to a large Abscess or Gangrene, as *Colot* observes. In these Cases, he practises the Puncture of the *Perineum*, and then a Division of the *Scrotum*, down to the Testicles, where the Gangrene is, that no Blood may be left there, which may excite a farther Putrefaction; after that, the injured Parts must be treated with Digestives and Balsamics. During the Cure, he retains a silver *Cannula* in the Urethra, to prevent any Urine from escaping, which would increase the Disorder. But where the Urethra is callous, and very much contracted, so that a Catheter cannot be introduced, he makes an Incision through the *Perineum*, without it; then passes a Probe through the Neck into the Body of the Bladder, lacerates the Callus, forms a large Suppuration, which separates the Callus, and restores the Parts to their former State. If any *Fistula* remains in the *Perineum*, he applies the actual Cautery. But if this Method is not prosecuted in time, the Patient will be too weak to leave any Hopes of Success.

ISICOS, *ισικός*. A sort of Sausage, described by *Apicius*, L. 2. C. 1. It is called *ισίκιον* by *Athenaeus*, and *ισικον* by *Trallian*. It is said to have been invented by *Heliogabalus*.

IS. R. or **IXIR**. An Elixir.

ISIS. A Goddess of the ancient Egyptians, reported by *Diodorus Siculus*, to have invented many excellent Medicines; and hence, he says, after she was received among the Number of the Deities, she was applied to for the Cure of Distempers; and frequently indicated Remedies by Dreams. *Galen*, de Comp. Medic. p. g. L. 2. C. 18. and L. 5. Cap. 2. and 3. takes notice of some Plaisters, which bear her Name. See, also, *Scribonius Largus*, Num. 26. and *Paulus Aegineta*, L. 7. C. 17.

ISOCHRYSON, *ισόχρυσον*. A pompous Title of a Collyrium, in *Galen*, Lib. de Comp. Medic. 1. L. 4. C. 7. It imports, worth its Weight in Gold. *Ischryson* is, also, the Name of a chymical Composition mentioned by *Libavius*, consisting of equal Parts of Martial Regulus of Antimony, and Quick-silver.

ISOCRATES, *ισοκρατής*, from *ισο*, equal, and *κρατῆς*, to mix. An Epithet of Wine, importing its being mixed with an equal Quantity of Water. *Hippocrates*, L. 2. de Morbis.

ISOMOERIA, *ισομοερίη*, in *Hippocrates*, de Aere, Locis, & Aquis, seems to import an Equability of the Seasons.

ISOPYRON, according to *Gerard*, is the *Trifolium Paludosum*; according to *Blancard*, the *Aquilegia*, or the *Flos Constantinopolitanus*.

ISORA-MUNE. H. M. The Name of a Tree which grows in *Malabar*. The Juice of the Root is esteem'd excellent in an *Empyema*, and Disorders of the Breast, even applied externally; and it is accounted good for Eruptions and Whitloes.

ISORRHOPUS, *ισόρροπος*. Equiponderated, or equilibrated; spoken when one Part is equal in Weight to another.

ISOSTATHMOS, *ισοσταθμός*. The Name of a Bechic Medicine in *Aetius*, Tetrabib. 2. Serm. 4.

ISOTHEOS, *ισόθεος*. Divine. A pompous Epithet for many Medicines described by *Galen*, *Aetius*, and *Paulus Aegineta*.

ISPIDA. The *ALCEDO*.

ISTHMION, *ισθμιον*. This is defin'd, the narrow Passage betwixt the Mouth and Gullet. The Fauces.

ISTHMOS, *ισθμός*. The same as *ISTHMION*.

ITALICUM Emplastrum. A Plaster described by *Paulus Aegineta*, L. 7. C. 17. *Italicus* is, also, an Epithet for a nervous Balsam, described by *La Mort*. Pharm. Med. Phys. C. 29.

ITEA. The *Salix*, Willow. *Aetius*, Tetrab. 1. Serm. 1.

ITIAGENES, *ιθαγενής*, from *ιθός*, for *ευθός*, right, and *γένος*, Kind. Legitimate, true, or genuine. It is used by *Hippocrates*, relative to a Conception, by way of Distinction from a false Conception, or *Mola*.

ITHYCYPHOS, *ιθυκύφος*, from *ιθός*, for *ευθός*, right, strait, and *κύφος*, gibbous, imports a Perversion from Straitness to Gibbosity. Thus *ιθυκύφη ῥάχις*, *Hippocr. de Artic.* is the Spine of the Back, elevated from its natural Rectitude into a gibbous Form. *Foefius*.

ITHYLORDOS, *ιθυλόρδος*, from *ιθός*, strait, direct, and *λόρδος*, incurvated, inflected, or bent inward, signifies perverted in a strait Course or Process, and depressed inwards to a Figure opposite to the gibbous one, expressed by the preceding Word. To this Purpose *Galen*, Com. in Lib. de Articulis, says, that, if the Parts deviate backwards, it is called *CYPHIOSIS*; if forwards, *LORDOSIS*; if sideways or obliquely, *SCIOLOSIS*. See those three Articles. *Foefius*.

ITHYORIA, *ιθυωρία*, *Ionice* *ιθυωρίη*, from *ιθός*, to go strait forwards, is a Process or Direction in a strait Line, and applied, *Lib. de Fract.* to the Bones.

ITHYSCOLIOS, *ιθυσκολιός*, from *ιθός*, strait, and *σκολιός*, oblique, imports a Deviation from a strait to an oblique or sideways Course or Process. Thus *ιθυσκολιός ἡ ῥάχις*, in *Hippocrates*, is an oblique and incurvated Spine, that is, as *Galen*, Com. 3. in Lib. de Artic. explains it, *διαστροφὴ ἐπὶ τοῦτίσῳ καὶ πρὸς ὡ*, "a Perversion to the anterior and posterior Parts." *Foefius*.

ITHY-

ITHYTRICHES, ἰθύτριχες, from ἰθύς for ἐθύς, strait, and ὀπίξ, Hair, in 6 *Epid. Sect. 7. Aph. 1.* are those who have strait Hair, and are opposed to the ἐλότριχες, or *Iuli*, or those with crisped or curled Hair, in *Aristot. Probl.* It, also, sometimes imports black Hair.

ITINERARIUM. A Staff, used in cutting for the Stone, is thus called by *Hildanus*, in his *Treatise de Lithotomia*, C. 14. 15.

ITRION, ἰτρον. A sort of sweet Cake.

IVA ARTHRITICA. See **CHAMÆPITYS**.

IVA MOSCHATA. See **CHAMÆPITYS**.

IVABEBA, Pison. The Name of an *American* Shrub, call'd, also, *Iva Brasiliensis*. *Margrav. Solanum pomiferum Americanum non spinosum lacteo flore.* The Root is esteemed a great Deobstruent, and particularly serviceable for absterging the Kidnies; but, on account of its Bitterness, Decoctions of this Root have generally the *American* Liquorice added to them. *Raii Hist. Plant.*

IVA-PECANGA. A Name for the *Sarsaparilla*.

IVA-UMBU *Brasiliensis* *Margrav.* called also *Prunus Brasiliensis*, fructu flavo, nucleo Amygdalæ sapore.

A Sort of *American* Plum-tree; the Fruit of which is eatable. *Raii Hist. Plant.*

JUBA, in Botany, is a Panicle, so called from its Resemblance to a Horse's Mane.

JUCAIA ARBOR. *Niremberg.* The Name of a Tree somewhat like the Pomegranate-tree. *Raii Hist. Plant.*

JUDÆI Compositio. The Name of an Eucharotic describ'd by *Celsus*, L. 5. C. 22.

JUDÆI Emplastrum. The Name of a Plaster described by *Celsus*, L. 5. C. 19. and of another described by *Aetius*, *Tetrab. 4. Sermon. 3. C. 14.*

JUDAICA ARBOR. See **SILTQUASTRUM**.

JUDAICUM BITUMEN. See **ASPHALTUS**.

JUDAICUS LAPIS.

Lapis Judaicus. *Offic. Schrod. 352. Calc. Mus. 298. Kentm. 28. Boet. 408. De Lact. 126. Aldrov. Mus. Metall. 711. Marth. 1386. Gein. de Lap. 128. Charlt. Foss. 29. Judaicus Lapis. Worm. 69. Schw. 382. Spinos Echini. Woodw. Att. Tom. 2. P. 11. page 19. JEWS STONE.*

This is an oblong, roundish Stone, of the Figure of an Olive, marked with Streaks and Furrows, running from the Basis to the Apex, according to its Length, at equal Distances from each other. It is of a whitish or ash-colour, and shining within. It parts obliquely into thin Laminæ, and is given in Powder to the Quantity of a Dram, in any proper Vehicle. It was called *Lapis Judaicus*, or *Syriacus*, from the Countries where it is found. By others it is named *Euroius*, as being of a diuretic Virtue. This last Virtue I very much question; but it is plain from Experience, that this Stone, the *Lapis Lyneis*, Crab's-eyes, and several other Things said to have a Power of dissolving the Stone, are really diuretic. But it cannot be concluded, that, because oftentimes Gravel comes away with the Urine, therefore they have any lithontriptic Quality; for the fixed earthy Parts of these Stones, being mixed and incorporated with the Salts of the Fluids in the Body, become thereby more fixed, and more unfit to pass off thro' the Pores of the Skin, but find their Way more easily thro' the Strainers of the Kidneys. Therefore the Secretion, by insensible Perspiration, being lessened, they are excreted in greater Quantities by Urine; and thereby whatever Saburra they find there, they wash away; and hence the Urine becomes turbid, and is sometimes mixed with Gravel, some Particles of which may be of a considerable Size, when the Passage is wide enough to transmit them. In this manner the diuretic Quality of these Stones may be accounted for; but neither Experience nor Reason give any Ground for attributing to them a lithontriptic Quality. *Geoffroy.*

Paulus Aegineta, Lib. 7. Cap. 11. calls this Stone *Tetolishos*; and hence an Antidote is named, described by the same Author, in the same Chapter. See **ECHINUS OVIARIUS**.

JUDICATIO. The same as **CRISIS**; which see.

JUGALE OS, or *Zygoma*. The Name of a Bone in the Head. See **CAPUT**.

JUGALIS SUTURA. The sagittal Suture is sometimes thus called. The Suture, also, by which the *Os Jugale* is articulated to the Bone of the superior Jaw, is so named.

JUGAMENTUM. The same as **JUGALE OS**.

JUGLANS. The Walnut. See **NUX**.

JUGULARIS Vena. The Jugular Vein. See **VENA**.

JUGULUM. The Throat, or anterior Part of the Neck. In *Celsus*, L. 8. C. 8. it signifies the Clavicle.

JUJUBA. See **ZIZYPHUS**.

Jujuba Indica. *Raii Hist. 2. 155. C. B. P. 446. Malus Malucensis nonnihil spinosa. Ejusd. 433. Jujuba Indica, rotundifolia spinosa foliis majoribus, subtus lanuginosis & incanis. Breyn. Prod. 2. 60. Commel. Flor. Mal. 149. Zizyphus Indica argentea tota. Herm. Mus. Zeyl. 8. 37. Zizyphus Zeylanica argentea spinis carens. Parad. Bat. Prod. 386. Ber. Indica fructu Jujubino. J. B. 1. 44. Chab. 51. Malus Indica Lusitanis, Ber. & Ber. Acasto. Park. Theat. 1636. Periu-Toddali. Hort. Mal. 4. 85. Tab. 41.*

Wielambilla. Mus. Zeyl. 8. Embellæ. Ejusd. 37. THE LACCA-TREE.

From this Tree the Gum *Lacca* of the Shops is produced. The Leaves of this Tree are like those of the Apple-tree, but hoary and woolly underneath, having Fruit like a Jujube, growing in Clusters.

There are three kinds of Gum lac; Seed-lac, which is in small, bright, redish Grains; of this melted is made the Shell-lac, which is in flat, thin, transparent Pieces, of a redish-brown Colour; and is the best Sort; the Stick-lac is what comes upon short Sticks, which are covered over by it, and it is in its native State. *Garzias ab Horto*, and *Bontius*, believed, that Gum-lac was prepared by great winged Ants, which suck'd out the Materials from the Branches of this Tree, which they worked as the Bees do Honey; but others, to whom Mr. Ray assents, rather think, that it is an Exudation of the Sap of the Tree, inspissated by the Sun; and to which the Ants, by their gnawing the Bark, may give the freer Vent.

Geoffroy calls it a kind of Gum Resin, gather'd by Ants in the East Indies from Flowers, which they afterwards carry to the Branches of Trees to make their Nests, in which they probably lay their Eggs; because these Nests are disposed in Cells, in some of which a small Grain is found, which is red when bruised, being the Worm out of which these winged Ants are afterwards formed. It is brought chiefly from the *Molucca* Islands, and, also, from *Madagascar*.

Gum-lacca is accounted opening and attenuating, removing Obstructions of the Liver and Spleen, and good for the Dropsy and Jaundice; it provokes Urine, causes Sweat, and purifies the Blood; but it is not much used in Medicines, greatest Part being spent in making sealing Wax; the finest of which is made of it.

TINCTURE OF GUM-LAC.

The Chymists observe, that certain Vegetables dissolve with Difficulty in Alcohol; yet, being dissolved therein, sometimes afford great medicinal Virtues. Such Medicines are Dragon's-blood, Gum-juniper, Gum-lac, and Myrrh, which are found of a very tenacious Hardness, that will not easily admit a Dissolution of their Parts; which have, therefore, been attempted various Ways, the most commodious of which is the following.

Gum-lac is brought to us from *Asia*, and is a kind of Resin, collected from the Trees by the Ants, in great Quantities, in the Island of *Ceylon*, whence the best is brought, with which they build their Nests.

Take of this pure Gum, reduce it to fine Powder, and moisten it with the Oil of Tartar *per Deliquium*, so as to make it into a soft Paste, which, being put into a round urinal Glass, is to be set in a Furnace, with Heat sufficient to dry the Mass gradually. Then take out the Urinal, and leave it in the open Air, without Fire, where the alkaline Oil will again resolve; after which it is to be dried a second time in the Furnace; and thus, by repeating the Liquefaction, and the drying alternately, the glassy Tenacity of the Gum will be broke, and resolved into a Liquor of an elegant purple Colour. Now let it again be gently dried, and carefully taken out of the Glass, as being thus prepared for affording a Tincture with Alcohol. Put the Matter into a tall chymical Glass, and pour upon it pure Alcohol, enough to float three or four Inches above it; stop the Glass with Paper, and set it in the same Furnace, that it may simmer two or three Hours, which may be done without Danger of losing the Alcohol, by reason of the long and slender Neck of the Glass. Let the Liquor cool, and pour off the clear Tincture, by a gentle Inclination of the Vessel, into another Glass, which is to be well stopped. The Remainder may be treated in the same manner with more Alcohol, and the Tincture poured to the former, till the Matter, by boiling, will no longer tinge the Alcohol; and then the Matter is exhausted. The several Tinctures, being put together, and purified from their Fæces by standing, are to be distilled by a very gentle Fire, in a glass Body, till one half of the Alcohol is come over: The Remainder, being thus thickened, is to be kept for Use, under the Title of Tincture of Gum-lac.

REMARKS.

Hence we see, that an Alkali, with the Air, and a digesting Heat, opens a dense Body, so as to make it give out its Virtue to Alcohol; and the Reciprocation of drying by the Fire, and moistening by the Air, penetrates to the uttermost Parts, though there always remain some fixed Parts in these Substances, incapable of being dissolved by the Repetition of this Action: Whence the Menstruum extracts the more active Virtue of such Substances, leaving the grosser, less active Matter behind. And hence we have an effectual, expeditious, commodious, and almost an universal Method, of preparing excellent

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excellent Tinctures; the general Virtues of which depend upon the presiding Spirit, secretly lodged in these Substances, and that often wonderfully contains their peculiar Virtues; again, upon a rich balsamic Part presiding in the same; and, lastly, upon a corroborating resinous Part, which they generally hold; and these are added to the Virtue of the Menstruum, or Alcohol. Hence, in general, all these Tinctures may be pronounced heating and exciting to the Nerves and Spirits; drying, preservative, strengthening, and constringent to the Vessels. But the present particular Tincture of Gum-lac is of great Virtue in curing the Disorders of the Gums, Mouth, and Teeth; in the Scurvy, being frequently used, by rubbing it on the Parts; and, taken internally, it has the same Virtue, and safely cures that Disorder, if not attended with too much Heat. It is, also, of great Use in the Gout, the Rheumatism, and the Scurvy from a sluggish Cause, as, also, a Leucophlegmatia, Dropsy, or the like: It may be taken, thrice a Day, in Spanish or Canary Wine, after the Stomach has been first cleansed and emptied: It has a grateful Odour and Bitterness, with an agreeable Astringency, that shews its strengthening Virtue, and is therefore highly commended in the Cure of the Fluor albus. *Boerb. Chem.*

JUJUBA SILVESTRIS. See PALMURUS.

JULAP, JULAPIUM, JULEB, and JULEPUS, all signify what is now called, in the Shops, a *Jalap*. This is an alterative Medicine, unknown to the ancient Greeks, and invented by the Arabians: It was so called because usually prepared of delicate and sweet Ingredients, or at least with Sugar, the Word *Julep*, or *Juleb*, in the Persian Language, signifying a sweet Potion. In Imitation of the Arabians, the Greeks of the latter Ages called this Form of Medicine *ζυλάπιον*, *Zulapium*, others *ιολάκιον*, *iolabium*, which Names are still used by Physicians. We meet with two Sorts of *Jalap* in Authors, one ascribed to the Antients, the other in Use among the Moderns.

The *Jalap* of the Antients was very different from that of the Moderns; it was a simple Syrup, consisting properly of the Juice, distilled Water, Infusion, or Decoction of one Thing only, sweeten'd with Sugar, and only prepared, for the most part, when there was instant Occasion for it: Of this Kind was the *Jalap Rosatus*, otherwise called *Alexandrinus*, and *Regius*, formerly in great Request, and a very elegant and proper Medicine for allaying Heat and Thirst.

But *Jalap* is, also, a Name for what the most modern Writers have called *Syrupus*, and *Serapium*, as is usual among the modern Italians; perhaps, because a Syrup is the Basis of a *Jalap*: At *Montpelier* they still keep to the old Name *Julepus*.

A *Jalap* then is a liquid Medicine, composed of some proper Liquor, and a Syrup, or sometimes Sugar, of extemporaneous Preparation, without Decoction, divided into three or four Doses, and designed for the Concoction or Alteration of the Humours, or restoring the Strength.

Hence this alterative Medicine may be distinguished into two Sorts: The first of these prepares the Humours, or concocts them, in order to their Evacuation; and this was what the ancient Greeks called *μεγροισμας*, [*Propotismus*] a precursory or preparatory Potion, in order to an universal Purgation; and therefore properly called, also, a concoctive or digestive Potion. The other Sort of *Jalap* is designed for producing an Alteration in the Humours, Spirits, and other Parts of the Body, without serving any cathartic Purpose; such are those we call strengthening and cordial *Julaps*, and the like. *Morelli Formulæ Remedium.*

JULIA. The same as JULIUS.

JULIANI ANTIDOTUS. The Name for an Antidote, described by *Actius*, *Tetr. 3. Seru. 3. Cap. 22.*

JULIS. Offic. Salv. de Aquat. 219. Rondel. de Pisc. 1. 180. Aldrov. de Pisc. 37. Gefin. de Aquat. 464. Bellon. de Aquat. 254. Jons. de Pisc. 28. Charlt. Pisc. 14. Raii Ich. 324. Ejucl. Synop. Pisc. 138. THE RAINBOW-FISH.

This Fish is frequently found about *Genoa*. The Broth thereof loosens the Belly, and is diuretic. *Pliny. Oribasius, Medic. Collect. Lib. 2. Cap. 49.* esteems this Fish as good Food.

JULIUS BASSUS. The Name of an ancient Physician, from whom two Medicines for the Colic are quoted by *Marcellus Empiricus*, *Cap. 29.*

JULUS. Offic. Mouff. Insect. 201. Charlt. Exer. 51. Jons. de Insect. 128. Aldrov. de Insect. 633. Mer. Pin. 205. *Iulus quartus*, glaber. Raii Insect. 46. THE GALLY-WORM.

This is a terrestrial Insect, furnish'd with many Annuli, or Rings, and creeping on many Legs, and rolling itself up, when touched. It is common in Gardens. *Charlton* recommends it, taken in Wine, against the Jaundice and Difficulty of Urine. *Dale.*

JULUS, in Botany, is a Katkin: It is an Aggregate of Summits, hanging down in Form of a Rope, or Cat's Tail; as in the Sallow, Hazel, Birch, and others.

JUMNISUM. Ferment. *Rulandus.*

JUNCAGO. See JUNCUS.

JUN

JUNCARIA, J. B. *Juncaria Sa'maticensis*. Clus. Hist. *Juncaria*. Tab. *Rubia latifolia aspera*. C. B. *Sinanchica Species*. Lugd. ITALIAN RUSHY HORSE-TAIL.

It is esteem'd vulnerary, deterfive, and aperitive; but is seldom used in Medicine. *Lemery des Drogues.*

JUNCTURA. A Joint, or Articulation.

JUNCUS. The Rush.

There are a great many Species of the Rush in Botanical Authors, none of which are used in Medicine, except the four following; which are,

1. *Juncus*; *lævis*; *paniculâ sparsâ*; major. C. B. P. 12. *Theat.* 182. *Park. Theat.* 1191. *Boerb. Ind. alt.* 2. 163. *Tourn. Inst.* 246. *Juncus vulgaris*. Offic. *Juncus lœvis*. Ger. Emac. 39. *Juncus lœvis vulgaris*, *paniculâ sparsâ nostras*. Raii Hist. 2. 1304. Synop. 3. 432. *Juncus paniculâ arundinacea*. J. B. 2. 520. COMMON SOFT RUSH.

2. *Juncus*; *acutus capitulis Sorghi*. C. B. P. 11. *Theat.* 173. *Raii Hist. Plant.* 2. 1302. Synop. 3. 431. *Tourn. Inst.* 247. *Boerb. Ind. A.* 2. 163. *Oxyechnos*. Offic. *Juncus pungens*, *sive Juncus acutus capitulis Sorghi*. J. B. 2. 520. *Juncus maritimus capitulis Sorghi*. *Park. Theat.* 1192. PRICKING LARGE SEA RUSH. It grows in maritime Places. The whole Herb and Seed are used, and agrees in Virtues with the *Juncus aquaticus maximus*.

3. *Juncus*; *aquaticus*; *maximus*. Ger. 31. Emac. 35. *Raii Hist. Plant.* 2. 1304. *Boerb. Ind. A.* 2. 64. *Holoschnos*. Offic. *Juncus lœvis maximus*. *Park. Theat.* 1191. *Juncus maximus*, *Holoschnos*. J. B. 2. 525. *Juncus maximus*, *sive Scirpus*. C. B. P. 12. *Theat.* 178. *Scirpus palustris altissimus*. *Tourn. Inst.* 528. BULRUSH.

The Seeds of this and the two preceding, roasted, stop a Diarrhœa, and Floodings in Women. *Dioscorides* recommends the young Shoots, as a good Topic for rubbing the Wounds made by venomous Spiders.

4. *Gramen*; *juncum*; *spicatum*; seu *Triglochin*. C. B. P. 6. *Theat.* 85. *Gramen Triglochin*. J. B. 2. 508.

It is deterfive, and operates by Urine; but binds the Belly. *Lemery des Drogues.*

JUNCUS ODORATUS. See SCHOENANTHUS.

JUNIPAPPEEYWA. A Name for the JANIPABA.

JUNIPERINUM VINUM. Wine impregnated with Juniper-berries. *Dioscorides, Lib. 5. Cap. 46.*

JUNIPERUS.

The Characters, according to *Miller*, are;

The Leaves are long, narrow, and prickly. The Male Flowers are, in some Species, produced at remote Distances from the Fruit on the same Tree; but, in other Species, they are produc'd on different Trees from the Fruit. The Fruit is a soft, pulpy Berry, containing three Seeds in each.

Boerhaave mentions six Species of this Plant; which are,

1. *Juniperus*; *vulgaris*; *fruticosa*. C. B. P. 488. *Tourn. Inst.* 388. *Boerb. Ind. A.* 2. 108. *Juniperus*. Offic. Ger. 1189. Emac. 1372. *Juniperus vulgaris*. *Park. Theat.* 1028. *Juniperus vulgaris baccis parvis purpureis*. J. B. 1. 293. *Raii Hist.* 2. 1411. Synop. 3. 444. THE JUNIPER-TREE, or BUSH.

This seldom grows, with us, to be bigger than a Bush, or Shrub, though, in some foreign Countries, as *Norway* particularly, it grows to a pretty large Tree; the Branches are thick set, with narrow, stiff Leaves, of a blueish-green Colour, sharp and prickly at the Ends. The Flowers are small, mossy, and staminous. The Berries are round, green for the first Year, and afterwards of a dark-purple, or black Colour, each Berry containing three corner'd Seeds. It grows upon Heaths, in several Counties in *England*; the Fruit is ripe about *Michaelmas*. The Wood, the Berries, and the Gum, are used.

The Wood is hot, dry, and cephalic, good to burn in Times of Pestilence, and contagious Distempers. The Berries are carminative and diuretic, expel Wind, help the Colic, and are very useful against the Stone, Gravel, and Stoppage of Urine; and are commended, by some, in all contagious, pestilential Fevers, and the Plague itself. The Gum, which is the *Sandaracha* of the Arabians, is yellowish, clear, almost pellucid, like Mastich, but yellower, and in larger Drops, of a less grateful Smell; it is used to be burnt upon Coals, and the Fume to be received by those who are troubled with Catarrhs, and serous Defluxions upon the Nose and Eyes.

Official Preparations are only the distill'd Oil. See OLEUM. *Miller's Bot. Off.*

Its Salt has some Resemblance to that called by *Angelus Sala*, *Oxyal Diaphoreticum*, being a fix'd Salt, loaded with a great deal more Acid than is necessary to saturate it.

Thus, by the chymical Analysis, we obtain from Juniper several acid Liquors, and a fix'd, but no volatile Salt. We must observe, that the Salt of this Plant is involved in a great Quantity of Sulphur, and some terrestrial Parts: Juniper-wood yields, besides the ethereal Oil, a great deal of Oil, thicken'd to the Consistence of Syrup: Its Berries yield a great deal more, and its Top a little less: To extract all these Substances from the Juniper, they must be carefully separated in the Analysis; otherwise

wife their Mixture produces, at first, an ardent and urinous Spirit; after which the Oil forsakes the Faeces: It is no hard Matter to perceive, that all these Principles should render the Juniper good to restore the Functions of the Stomach, to dissipate Wind, and Matters which cause acute Pains, to clear the Lungs, and evacuate that gross Lymph which often occasions Difficulty of Breathing. This Plant is, also, sudorific, cephalic, and antihysterical; it provokes the Menstrues, takes away Obstructions of the Bowels, restores their Elasticity, and gives a free Passage to the Urine. They make use of the Wood, the Tops, and the Berries. The Decoction of the Wood volatilizes the Blood, and purifies it by insensible Transpiration, much after the manner of Guaiacum. A *Semiacupium*, prepar'd with this Wood, gives great Ease to those who are troubled with the Gout; the Wine, in which the Tops of Juniper have been boiled, is very diuretic. *Tragus*, *Matthioli*, *Hartman*, and *Simon Paulli*, affirm, that they have cured some Persons of the Dropsy by the Use of this Wine. I have seen some very much eased by Pills made with two Parts of Aloes, and one Part of Juniper-berries. They draw from these Berries an ardent Spirit, a Tincture, an Elixir, and an Extract; they prepare with it, also, a Ratifia, and a sort of Honey: The Tincture is made by the Infusion of these Berries in their ardent Spirit: The Infusion of the same Berries in their Spirit, or common Water, and evaporated to the Consistence of Honey, is called the Elixir or Extract of Juniper. The Honey of Juniper is only the Berries boil'd with Honey. It is good in Clysters, for the Dysentery and Tenesmus. The Ratifia is only an Infusion of the Juniper-berries in Brandy or Champaign, with the Addition of a little Sugar, and some Cinnamon. The Pulp of these Berries, cleared from the Seeds, and work'd up with some Sugar, makes a Conserve not inferior to the Preparations just now mentioned. Lastly, they burn the Fruit of this Plant to remove a pestilent Air. It is infused in Vinegar in time of the Plague, to wash Letters, Linen, and the very Utensils, with it. We have no Plant, in Europe, that is of greater Use: It is used in the *Elixir Vita* of *Fioraventi*, in the *Elixir de Tribus*, in the pestilential Elixir of *Sennertus*, and in that which *Zwelfer* calls the *Asthmatic Elixir*. *Martyn's Tournefort*.

The Whole of the Juniper-tree is possessed of a medicinal Quality, because the Whole of it is balsamic. Its Wood is so far from being inferior to the exotic Woods, *Guaiacum* and *Sassafras*, that it may not only be commodiously used as a Succedaneum to them, but is, in my Opinion, says *F. Hoffman*, preferable to them, in all Disorders arising from an impure State of the Humours. Its Berries, in consequence of the large Quantity of balsamic Oil which they contain, whether used in Substance, reduced to a Rob, or toasted, and used with Water, by way of Coffee, are highly efficacious against all those Diseases which arise from Obstructions of the Viscera, or a thick and viscid Condition of the Blood; for which Reason they are of great Service in Asthmas, Cachexies, the Jaundice, the Colic, the Stone of the Bladder and Kidneys, as, also, in Crudities of the Stomach. Some Physicians, of no inconsiderable Characters, inform us, that large Numbers of dropical Patients have been cured by a *Lixivium* of the Ashes of this Tree, exhibited in Wine. *Hoffman de Praestantia Remed. Domest.*

2. Juniperus; vulgaris; Arbor. C. B. P. 488.
3. Juniperus; Bermudiana. H. L. 345.
4. Juniperus; Virginiana. H. L. 345.
5. Juniperus; Virginiana; foliis inferioribus Juniperinis, superioribus Sabinam, vel Cypressum, referentibus.
6. Juniperus; Virginiana; Ramis intortis, pendulis, expansis; folio toto Juniperino. Boerb. Ind. alt. Plant. Vol. 2. p. 208.

Besides the foregoing Species of *Juniperus*, *Dale* mentions the two following; which are,

1. *Juniperus major*. Offic. *Juniperus major* baccâ caeruleâ. C. B. P. 498. Tourn. Inst. 389. Raii Hist. 2. 1416. *Juniperus maxima*. Ger. 1189. Emac. 1372. *Juniperus maxima* Illyrica. Park. Theat. 1029. J. B. 1. 300. THE BLACK JUNIPER.

It grows in Greece; the Wood and Berries are used, and agree in Virtues with the *Juniperus*; vulgaris; fruticosâ. *Dale*.

2. *Juniperus Alpina*. J. B. 1. 301. Raii Hist. 2. 1413. Synop. 444. Park. Theat. 1028. *Juniperus Alpina minor*. Ger. Emac. 1372. *Juniperus minor montana*, folia latiore, fructuque longiore. C. B. P. 489. Tourn. Inst. 389. DWARF JUNIPER, WILD SAVINE.

It grows upon Mountains: The Herb is used: A Decoction of its Tops, or its expressed Juice, are said to be good for destroying that Species of Vermin called *Bots*, which are sometimes lodged in the Stomach and Intestines of Horses. *Dale*.

Miller, besides the foregoing Species of *Juniper*, enumerates six more.

JUNIUS CRISPUS. The Name of a Physician quoted by *Marcellus Empiricus*, Cap. 23. as the Author of a Medicine, which he calls *Ambrosia*.

JUNO. The Air.

JUNONIS ROSA. The Lily. *Blancard*.

JUPICAL *Brasilensis*. A Species of Grass, which grows in *Brasil*. *Piso* relates, that the Plant, rub'd upon the Part

affected, does much Service in an *Impetigo*, and eases the troublesome Itching.

JUPICANGA. A Name for the *China Occidentalis*.

JUPITER.

Stannum. Offic. Mer. Pin. 208. Aldrov. Mus. Metall. 181. Schrod. 394. *Stannum*, seu *Plumbum candidum* Calc. Mus. 458. 466. *Stannum Jupiter*. Mont. Exor. 13. *Plumbum candidum quod & Stannum alias vocatur*. Worm. 124. *Plumbum candidum*. Schw. 387. Kentm. 85. Fabr. 16. TIN. *Dale*.

JUPITER. Tin. The Characters of Tin are;

First, It is the lightest of all Metals.

Secondly, It is the least simple of Metals; being brought by a small Degree of Fire, to emit sulphurous Flames, which are easily separable from the metalline Part, and almost combustible.

Thirdly, It is hence less fixed in the Fire than any of the other Metals.

As it is, of all Metals, the least fixed in the Fire, and affords the greatest Quantity of sulphurous Fumes, it consequently loses most Weight in the Fire. The Fume, thus emitted, seems to be the Sulphur of the Metal, which is pernicious to the Lungs, as appears by those who are employ'd in melting Tin, it usually giving them a pale ghastly Complexion, and throwing them into a *Phthisis*.

Fourthly, It is soft, flexible, malleable, and may be drawn into Wire, but not so well as Iron; neither is it very sonorous or elastic.

But though it be very little sonorous, or the least of any Metals, except Lead, yet, when mixed with other Bodies, it may augment their Sound; as in the Composition of Bell-metal. So, though it be but very little elastic in itself, yet, when mixed with other elastic Bodies, it may increase their Elasticity.

A Body, Mr. *Boyle* observes, by being associated with another, may have new Properties and Uses, and some of them quite different from what it had alone: Thus two or more Materials, being conjoined, may be qualified into a third, by virtue of fresh Properties thence accruing to the Composition. As Tin is flexible, and yields but a dead Sound, who would dream, that one considerable Use of it should be, to make a less yielding and better sounding Metal more strong and sonorous? Yet Bell-metal is principally composed of Tin and Copper.

Fifthly, It melts more easily than any of the other Metals; long before it ignites, and with a Degree of Heat little greater than that of boiling Water: It readily hardens again in the Cold.

Sixthly, When crude, or accompanied with its adhering Sulphur, it dissolves only in *Aqua Regia*; but, when purified of its Sulphur by Calcination, it dissolves even in Vinegar, and requires only a small Proportion of that Solvent.

Acids do not dissolve it without great Difficulty, especially the more powerful ones. The Reason hereof is, apparently, its abounding with Sulphur, which Acids do not touch. It dissolves in *Aqua Regia*, scarcely in *Aqua fortis*; which is a remarkable Circumstance, considering the near Alliance it has with Silver. The weaker the acid Menstruum is, the sooner and the easier it works its End; and the stronger, the more slowly: Thus four Apples, and other unripe Fruits, being boiled in Tin Vessels, will grow sweetish; but the strongest Acids, boiled in the same Vessels, make no Solutions at all. But Tin, freed by Calcination from its Sulphur, dissolves in all Acids, and is reducible thereby to vitriolic Crystals. This Solution is little practised, by reason of the Difficulty attending it; for the Tin must be first thoroughly calcin'd, and the Calcination requires a continual Fire for three Days.

Seventhly, It so far endures Lead and Antimony in the Refiner's Test, as hardly to be separable from them, without the Assistance of Copper.

Eighthly, In many of its Properties it approaches to Silver.

If the Sulphur could be perfectly purged out of Tin, 'tis likely it might approach to Silver; for, as it is, the two Metals have several Properties in common. Thus, when dissolved in strong Acids, Tin grows bitter, as well as Silver; and, when it is fused along with Silver, it adheres so obstinately to it, that they can scarcely be separated; and in such Circumstances it resists Lead, almost as much as Silver does. Hence many account it an imperfect Species of Silver.

It may admit of some Doubt, whether Tin bears these Resemblances to Silver, in virtue of its being Tin, or only in virtue of the Particles of Silver mixed with it. 'Tis certain more of these Resemblances, and those in a greater Degree, are found in some Species of Tin than in others. Mr. *Boyle* mentions a Gentleman, who, having procured a good Quantity of the nobler Metals, from some Tin-ore, long digested in lixiviate Liquors, desired Mr. *Boyle* to purchase him a large Quantity of it, in full Expectation of raising an Estate. But, says Mr. *Boyle*, after his first Stock of Ore was spent, the next that he procured, though managed with the same Care as the former, proved wholly unprofitable.

He, in the same Place, relates, that having dissolved some Block tin (that is, pure and unwrought) in a particular Menstruum, which held it suspended; and, having afterwards evaporated the Solution, and set it to shoot, he found, to his Surprise, that the Crystals it afforded, were not all like its own kind of Vitriol, but broad, flat, and thin, like those of Silver: Upon examining them by the Tongue, they had nothing of the Taste of Calx of Tin made in Spirit of Vinegar, but that excessive Bitterness we meet with in the Crystals of Silver made with Aqua-fortis; and both of them presently tinged the Nails and Skin with a Black that would not easily wash off: Whence he might have suspected, that the Menstruum had exalted the Metal into an Affinity with Silver, had he not afterwards prosecuted the same Trial with the same Menstruum, and another Parcel of Block-tin, and found, that though this Metal was bought at the same Place, and very soon after the other, yet the former Success proceeded from his having procured a Lump of Tin of a peculiar Nature.

Some Authors speak much of the Analogy between Tin and Lead, and will have Tin to be Lead, only under a less Degree of Coction: But, if in some Circumstances they correspond, they differ in others. Lead, for Instance, is easily reduced to a Calx, and Tin more easily still; but the Calx of Lead readily melts, and runs into a brownish Glass, whereas Tin does not vitrify without much Difficulty. Tin and Lead readily mix and unite with each other by a gentle Fire; but, if the Heat be intense, there arises a Colluctation between them; the Effect of which is, that both fall into a Calx, and that the Lead becomes exceedingly difficult, afterwards, to fuse and vitrify. The Tin is easy to be revived, but the Lead not without Difficulty; nor is the Restoration at all complete, or the new Body in all respects like the old.

Tin is found in a very heavy Ore, though itself be light; usually in a brown deep Glebe, inclining to yellow; or in a black smooth, shining one, which is the richest Kind; sometimes like Iron-stone; and sometimes it is, also, in a heavy porous Stone.

The Ore is principally found in *Cornwall* and *Devonshire*, whence all the rest of *Europe* is supplied with this Metal. It is so much the peculiar Product of this Country, that *Camden* supposes it to have given the Denomination *Britain* to the Island. And *Bochart* derives the Name *Britannia* from the *Syriac* *Barat Anac*, that is, *Fields of Tin*.

The Metal is procured by roasting, grinding, washing, then melting the Ore, and thus separating the Scoria from it.

The Stones from which Tin is wrought, *Dr. Merret* tells us, are usually found betwixt the two Walls of Iron-coloured Rocks, of little or no Affinity with the Tin, in a Vein, from four to eighteen Inches broad: Though, instead of Stones, they sometimes, also, find it mixed with a small gravelly Earth, generally of a red Colour, but sometimes white. From the Earth the Tin is easily separated, by bare Washing, which is called *Prian Tin*, and is scarcely half the Value of the former.

In the Tin-ore is frequently found an hard, glittering, sulphurous Substance, called *Mundic*, or *Maxy*, which is commonly supposed to feed the Metal; yet, where the Mundic abounds, they rarely find much Tin. The Mundic is to be carefully separated; for, if the least of it be left, in melting the Tin, it makes it brittle and cruddy, and diminishes much of its Ductility.

There also occurs a sort of Spar, of a shining whitish Substance, soft and statish at first, but soon after it becomes harder. It seldom grows, but only sticks to the Metal. Some of the Miners account this the Mother or Nourisher of the Metal. The best Ore is that in Sparks; and next to this, that which has bright Spar in it.

The Ore being dug, they break the greater Stones, and thus carry it to the Stamping or Knocking-mill, where it is pounded with large Ladders, of thirty or forty Pounds apiece; and thus reduced to a small Sand, to be washed out by a Stream of Water, discharged into it through a Brass Grate, into a Laundry, or Trench dug in the Floor, out of which the Water escapes, carrying with it the Parts not metalline, which they call the *Causalty*, and leaving the other at the Bottom.

To clear away the Mundic, they dry or burn the Ore, thus separated, in a Kiln, upon Iron Plates, keeping the Matter constantly stirring, that all the Mundic may, by degrees, get uppermost, and so be burnt away; which they discover by the Flames growing yellow, and the Stench diminishing. Then they proceed to grind it again, very fine, in a Craving-mill; after which they wash it, then dry it a little, and, at last, carry it, thus prepared, to the Furnace, which they call a Blowing-house, and there melt, and cast it.

When it runs out of the Furnace, there swims on it a Dross, or Scum, like that of Iron; which, being melted down with fresh Ore, runs into Metal. The Causalty they throw on Heaps upon Banks, which, in six or seven Years, they fetch over again.

The Ore of Tin is commonly a black, ponderous, stony Substance, appearing like black Stones; but some Tin-stones are

yellow, and others white; some are brittle, and others extremely hard, so as to require being broke before Calcination.

Tin is seldom used in Medicine internally, though its Virtues are highly extolled by some, but we fear upon no just Grounds; particularly in Diseases of the Head, the Lungs and Uterus, the Falling-sickness, and the Bite of a mad Dog. It has been taken in crude Filings, to the Quantity of twenty Grains, or more, for some time, without Harm.

Besides the Utensils and Vessels made of this Metal, it serves to preserve Iron and Copper; being extremely easy to melt, and, by means of any unctuous Matter, adhering closely to them: It likewise serves in Solders; amalgamated with Mercury, it serves for the Foiling of Looking-glasses: By Calcination it makes Putty; which is of great Use in the Polishing of Gems, and the making of Enamels: It is a principal Ingredient in Pewter, as well as Bell-metal: It mixes well with Zink and Regulus of Antimony, and thus becomes whiter and harder; but too much Regulus makes it brittle.

Being exposed on a Tile to the Focus of a Burning glass, it sends off a copious thick gross Fume, leaving a fine, light, white Calx behind, which, being continued longer in the Focus, turns to thin, transparent, glassy Strings; which melt no more, without the Addition of an unctuous Substance or Charcoal; by this means it returns to Tin. It deflagrates with Nitre: Hence, perhaps, this Metal consists of a copious Sulphur, or particular Bitumen, and a fine vitrifiable Earth, mixed, on account of its poisonous Quality, with a minute Proportion of an arsenical Salt.

Tin is soluble only in Aqua Regia; and a Solution of it tinges a Solution of Gold with a beautiful purple Colour. A Liquor which will perpetually smoke, or, as is commonly said, a Spirit fermenting in the Air, may be made from Tin, in this manner.

Take of pure Tin, one Part; of Quicksilver, three Parts: Mix them, and make an Amalgama; to which add four Parts of corrosive Sublimate, and, having mixed them well together in as small a Time as can be, throw them into a Glass Retort, to the Neck of which a Receiver is to be fitted, and a Dish set under the Receiver full of cold Water: Then, distilling with a Sand-heat, a pellucid Liquor rises first; next, the Spirit, with great Impetuosity; and, last of all, white Flowers stick in the Neck, and upper Part of the Retort. Then, removing the Fire, separate the turbid Liquor, and keep it close stop'd in Glass Phials; and, whenever it is exposed to the open Air, it will break out in thick Fumes.

Tin may be reduced into a Powder by this Method.

Melt half a Pound of Tin in a Crucible, and pour it into a round wooden Box; cover it close, and shake it about, till it is cold; some part of it will be in a grey Powder: That Part which remains in solid Metal, melt again; and, putting it in the Box, shake it, as before: Repeat the same Operation, till there is as much pulverized as is required.

This, with some, is a Secret against Worms, and is particularly destructive to them: They give half a Dram of it in Conserve of *Roman* Wormwood, made into a Bolus, after the Use of Mercurials, against the Joint-worm.

Tin is thus calcin'd.

Put what Quantity you please of Tin into an Iron Dripping-pan; place it in a reverberating Oven, and make such a Fire as to keep it melting red-hot; every now-and-then stirring of it with an Iron Spatula, full of Holes, the better to break the Tin, and forward its Calcination: This you may continue, till you have a sufficient Quantity for your Use.

The principal chymical Preparations of Tin are, *Sal Jovis*, *Antibellitum Paterni*, *Arcanum Joviale*, and *Aurum Mosaticum*. The *Sal Jovis*, or Salt of Tin, is thus prepared.

Take any Quantity of calcin'd Tin, and put it into a Matraass, with as much distilled Vinegar as will rise four Fingers-breadth above it: Let it digest three or four Days, and stir it in that Time often; then pour off the Liquor, and put on more, three or four times. All the Liquors filtrate together, and evaporate about two Thirds: Then let it stand in a cool Place, and it will shoot into Salt on the Sides of the Vessel. Evaporate the Liquor again, and continue to repeat the same Operation, until all be obtain'd.

This is commended principally as a Cosmetic, in Pomatums; but it is often given inwardly in nervous Cases, and particularly Convulsions and Epilepsies, from two Grains to eight. *Quincy* affirms, that he has known two or three extraordinary Instances, where the Success could be ascribed to nothing besides this Medicine.

dicine. In young Children it is ready to occasion a Puke; but it is never the less efficacious: It is not agreeable in Liquids, but is best taken in a Bolus.

For the *Antibecticum Poterii*, see ANTIHECTICUM.

For *Arcanum Foviale*, see ARCANUM.

For the *Aurum Mosaicum*,

Take of pure Tin, an Ounce; of Mercury, revived from Cinnabar, ten Drams: Make an Amalgama, which being mixed with ten Drams of common Sulphur, and an Ounce of Sal Ammoniac, let the Whole be well rubbed and mixed together: Then sublime them with a common Fire for four Hours: A kind of cinnabarine Substance will rise to the upper Part of the Vessel, and a spongy Substance of a Gold Colour will remain at the Bottom; which, being washed in many Waters, is termed *Aurum Mosaicum*, and used both by Painters and Physicians.

It is believed to be diaphoretic, and is given from ten to thirty Grains, in hysteric and hypochondriacal Affections, and in malignant Fevers.

Boerhaave gives us the following Process upon Tin.

Mix with Aqua-fortis, or Spirit of Nitre, a sixth Part of Sea-salt; and thus an *Aqua Regia* is obtained, which dissolves Gold, and not Silver. If Aqua-fortis, also, be drawn off from Sea-salt, or Spirit of Salt from Nitre, by Distillation; thus, also, an *Aqua Regia* is obtain'd. Again, if two Parts of Nitre, three of Vitriol, and five of Sea-salt, be distil'd together, as in making Aqua-fortis, an excellent *Aqua Regia* is produced; which, therefore, we see consists of a Mixture of Nitre and common Salt.

To a Quantity of this *Aqua Regia*, contained in an Urinal-glass, add a little Tin, and a violent Dissolution arises: Continue, till as much Tin is dissolved as possible; and the Solution will appear thick or oily. If the Solution be diluted with twenty times its Quantity of Water, or more, the Tin will be precipitated; which, being perfectly washed in Water, and then dried, affords a white Powder or Magistery of Tin.

Tin, put into Aqua-fortis, makes a violent Effervescence; when the Tin, dissolving and swelling, appears in the Form of a thick Soap; or the White of Eggs.

This is a peculiar Manner of Solution; the Liquor is in some measure bitter, and therein approaches to Silver. The Calx, thus prepared, is given by many Physicians, as a particular Remedy in hypochondriacal and hysterical Diseases; but I do not admire it, as there are safer for the same Purpose. When duly mixed with Pomatum, it affords a famous Cosmetic for an ulcerated Skin. It is difficult, with the utmost Violence of Fire, to reduce it to Tin again. It appears by this Experiment, that Tin, of all the Metals, dissolves with the least Proportion of Acid. It is surprising, that Tin, dissolved in *Aqua Regia*, should not fume: Yet, if mixed with twice its Weight of Mercury sublimated, and distilled in a Retort, it affords a Liquor at first that will smoke perpetually, and exhale all away. *Boerhaave*.

JURACATIA *Brasilensis*. *Marcgrav. Piso. Arbor peponi-fera Brasilensis spinosa, fructu Mamao simili, ramosa.*

The Name of a Tree which grows in *Brasil*, to which I find no medicinal Virtues ascribed.

JUREPEBA *Brasilensis*. *Marcgrav. Solanum spinosum Indicum Borriginis flore. Ico. Roberti Hort. Paris. Solanum foliis & caule spinosis. Moris. Præcl. Solanum spinosum, maxime tomentosum. Bocc.*

The Name of a *Brasilian* Tree, describ'd by Mr. *Ray* in his *Historia Plantarum*, but without any medicinal Virtues.

JURUMU, called, also, *Pepo Brasilensis*, *Lusitanis Bobora*. *Marggr.*

The Name of a *Brasilian* Pumpkin, said to be agreeable Food, either boil'd, or roasted under the Embers.

JUS, Broth. We have already describ'd the *Jus Album*, from *Oribasius*, who took it from *Galen*, de *Aliment. Facultat.* L. 3. C. 30. under the Article *ALBUM Jus*. See, also, *Dioscorides*, L. 2. C. 35. And, under the Article *FURA*, we have consider'd Broth as a Restorative, and directed the Methods of using it. I shall, in this Case, only farther remark, that it is a very great Error to exhibit strong Jelly-broths, by way of Nourishment, in weak and worn-out Constitutions; because these are likely to prove too strong for the Powers of Digestion. And the great Secret of restoring lost Strength and Flesh consists in proportioning justly the Aliment, to the Strength of the digestive Organs.

JUSQUIAMUS. A barbarous Word, made *Latin* from the *French*, importing Henbane.

JUSSA is explain'd by *Rulandus*, *Lapis Gypseus*, Plaster of *Paris*.

JUSTICIA.

This Plant was so named by the late Dr. *Houftoun*, in Honour of *James Justice*, Esq; a great Lover and Encourager of Gardening and Botany.

Of this Plant *Miller* mentions two Species; which are,

1. *Justicia annua*, hexangulari caule, foliis *Circeæ* conjugatis, flore miniato. *Houff.*

2. *Justicia frutescens*, floribus spicatis majoribus, uno versu dispositis. *Houff.*

There are no medicinal Virtues attributed to either of these Plants at present, that I know of.

JUSTUS. The Name of an Oculist, mentioned by *Paulus Ægineta*, L. 6. C. 20.

JUVANTIA. A Term introduc'd into Medicine, importing whatever relieves under a Distemper, whether Aliment, Medicine, or any of the Non-naturals.

JUVENCUS. A Steer. See *Bos*.

JUWB Amazonum. *Clus. Arbor exotica foliis alatis. C. B.*

The Name of an exotic Tree, describ'd by *Ray*, but without any medicinal Virtues.

JUXTANGINA. The Name of a Species of Quinsy, the same as *Cynance*, or rather *Parasynance*. *Castellus*. See *ANGINA*.

IXALE, ἰξάλη, in *Hippocrates. Lib. de Fract.* signifies an entire Goat-skin, according to *Galen*; or the Skin of any other Animal.

IXIA. A VARIX; which see.

IXIA, in Botany, according to the Moderns, is the *Carlina*, or *Chamaeleon Albus*.

But the *Ixia*, or *Ixias*, mentioned by *Aetius*, *Aëtianus*, *Scribonius Largus*, and others, does not seem to be the same Plant as what we now call by that Name; for it is represented as a Poison.

Ixias is a Name for the Herb *Chamaeleon*, as appears from *Scribonius Largus*, where he treats of Poisons; and, also, from *Hesychius*. It does not, however, mean all Species of *Chamaeleon*, but only what yields a viscous Gum, as does that which grows in *Crete*; and, as *Theophrastus* writes, produces a Tear: We are told, also, by *Dioscorides*, that the same Plant, which he calls the white *Chamaeleon*, in some Places discharges a *Viscum* at its Roots, which the Women use instead of Mastich. This Distinction of the *Chamaeleon* was observ'd by *Nicander*, in his *Alexipharmaca*, where, mentioning the *Ulophonus* [ὐλοφόνος] a poisonous Plant, which is unanimously agreed to be the *Chamaeleon*, he adds the Characteristic Epithet ἰξίον, viscous. But, since the Antients have distinguish'd the *Chamaeleon* into two Sorts, and *Dioscorides* seems to make the *Ixias* a Species of the *White*, whereas it is certain, that the *White* may be taken inwardly, but the *Ixias* is a very pernicious Poison, it appears, however, from what they say of them, that the *Ixias* is of a very different Nature from the *Chamaeleon*, which produces no *Viscum*; for this latter, if of the white Sort, is not poisonous, but prescribed by *Dioscorides*, *Galen*, and *Pliny*, against Worms of the Intestines, the Dropsy and Dysury; but the black *Chamaeleon* has a poisonous and deadly Root, as we are assured by *Galen*, who, therefore, advises it to be used outwardly for the *Scabies*, *Impetigo*, and *Vitiligo*. But the Poison of the *Ixias* has very different Effects from that of the black *Chamaeleon*, and requires as different Remedies; as appears from *P. Ægineta*, who treats separately of the *Ixias* and *Chamaeleon*, and of the Remedies against them. *Dioscorides*, also, in the Preface to his sixth Book, having divided Poisons into their proper Classes, ranges the *Chamaeleon* and *Ixias* separately among the Roots.

This Plant is called *Ixias*, ἀπὸ τοῦ ἰξῦ, from *Ixas*, [*Viscum*]; for it abounds with so tenacious and pernicious a viscid Juice, that it seems to be mortal only on account of its conglutinating the Intestines, agreeably to the Description of its Effects by *Nicander*; in the *Latin* Version of which we have ἰξίας render'd by *Viscum*, from the Example of *Pliny*, who calls it by this Name in many Places; and, translating almost every thing from *Greek* Authors, gives us the same Remedies for the *Viscum*, which the *Greeks* had prescribed against the *Ixias*. For, by the Term *Viscum*, we are not to understand what Fowlers use in taking of Birds, since that was never accounted Poison; whereas the *Ixias* has that Character from all who have written of it: But the great Similitude they bear to one another in Effects, was the Cause why *Pliny* render'd ἰξίας by *Viscum*; for, as *Viscum* is extremely tenacious of whatever it adheres to, so the *Ixias*, taken inwardly, glutinates all the Intestines, contracting and stopping up all the Orifices, thro' which the Excrement should be discharged. It is to be wonder'd, however, that *Pliny*, who seems to have no Aversion to *Greek* Words, should chuse to say *Viscum* before *Ixias*; and the more, because *Scribonius Largus*, who writ before him, makes no Scruple to call it *Ixias*.

Some call the *Chamaeleon*, *Ixias*. The white Species, in some Places, generates a white *Viscum* under the *Ala* of the Leaves, principally about the Rise of the Dog-star, in the same manner as Frankincense is said to be produced: Whence it takes the Name of *Ixias*. *Pliny*, Lib. 22. Cap. 18.

The

The *Ixias*, which some call *Chamaeleon*, smells, when taken, like *Oryzum*. Taken inwardly, it causes a Swelling of the Tongue, a Delirium, and a Stoppage of all the natural Passages. Remedies are Wormwood drank in Wine; or two Drams of Castor taken in four Cyathi of Wine. *Scribonius Largus*, N^o 192.

The *Ixias*, which is, also, called *Ulophanon*, in Taste and Smell resembles *Ocymum*. When taken, it causes a violent Inflammation of the Tongue, with Madness; obstructs all the Passages for the Discharge of the Excrements; excites a great Rumbling in the Intestines, and a Fainting attended with an Incapacity of Evacuation. The Cure begins with strong Emetics and Clysters, after which must be exhibited the Cremor of Wormwood in Mulsim, or Vinegar, or Oxymel, or the Seed of wild Rue, or the Root of Silphium, or the Decoction of Tragoniganum in some of the before-mentioned, or in Milk; or take of Nard, and Silphium, each half a Scruple, in Wine; or take of Castor, Rue, and Turpentine, each one Dram. *Aetius*, *Tetrab.* 4. *Serm.* 1. C. 71.

IXINE. The same as IXTAS.

IXION, ἰξίων, in *Galen's Exegetis*, is expounded φύλλον τῷ λευκῷ χαμαλέονι, "the Leaf of the white Chamaeleon."

IXIR. See XIR.

IXIS, ἰξίς, in *Hippocrates*, *Lib. de Rat. Viti. in Morb. acut.* signifies a strait or direct Way, or Course; as in that Passage, where, speaking of Pusana duly lubricous, he says, ἔδαμῃ γὰρ περσίσχῃ, ἔδῃ μὲν καὶ τὴν τῷ θώρακι ἰξί. "It no-where adheres nor stops in the strait or direct Passage of the Thorax" (the Oesophagus). *Galen*, commenting on this Place, says, ἴσμεν δ' ὅτι τὴν ἰξίν ὡς τὸ πολὺ μὴ τὴν ἐνθυώειαν, ἐνὶ τε τῇ καὶ αὐτὴν λέγει τὴν οὐρανόν, &c. "We know, that (*Hippocrates*) by *Ixis* generally means *Eythoria* (a strait or direct Course), and sometimes the Conveyance itself. Now it is plain, that *Pisana* passes in a strait Course down through the Thorax, and is, also, conveyed into the Ventricle through the Oesophagus; so that the Meaning of *Hippocrates*, in the Expression, is, that nothing sticks by the Way, as is usual in many Affections of the Thorax and Lungs, where what adheres becomes dry, and causes pertinacious and almost insuperable Obstructions." By θώρακι ἰξί, then, is here meant the Gullet or Oesophagus, the strait or direct Passage, by which the Pusana passes to the Ventricle or Stomach. *Galen*, in his *Exegetis*, expounds ἰξίς by ἐνθυώειαν, a strait or direct Way, or by ἀφίξις, an Advent or Access. The same Author explains κατ' ἰξίν, in *Hippocrates*, by κατ' ἐνθόν, or κατ' ἐνθυώειαν, that is, directly, or in a direct Line; as when, *Lib.* 1. περὶ γυναικ. it is said, that if the Semen proceeding from the Man concur κατ' ἰξίν, directly, so as to make one Line with that from the Woman, she will the sooner conceive. And ἰξίς ἔλκε, he expounds by ἐνθυώειαν, "the strait Course or Situation of an Ulcer." *Ixis* is sometimes used with respect to the Breadth of the Body, sometimes to its Length, *Lib. de Fract.* Again, *Hippocrates*, in the same Book, advises us to be very cautious of applying Splints, κατὰ τὴν σφυρῶν τὴν ἰξίν, "to the Part lying in a direct Line with the Malleoli." The same Author, for restoring a Cyllofisis, (see CYLLOS) directs the Bone of the Tibia, on the Outside, near the Malleolus, to be forced inwardly; but the Os Calcis, τὸ κατ' αὐτὴν ἰξίν, "directly answering to it," to be protruded outwards: Where *Galen* expounds ἰξίς by ἐνθυώειαν, that is, a Direction in which the Os Calcis answers to the Tibia, when placed on it in its natural Situation. And, in the same Book, he says, that the inward Part of the Os Femoris is thicker than the outward, as that Part of the Cubit, τὸ κατὰ τὴν τῷ μικρῷ δακτύλῳ ἰξίν, "which answers directly to the little Finger," is longer, and more slender, than the rest. *Foefius*.

κατ' ἰξίν (*Kat' ixin*) is explained, in *Galen*, *Com. ad Aph.* 20. *Lib.* 1. by κατ' ἐνθυώειαν, "according to the Direction of a right Line, or directly forward." And, *Com. ad Aph.* 21. by κατ' ἐνθόν τῷ πιπρονότῳ μολεῖν, "in a direct Line with the Part affected." He gives the same Exposition of the Phrase in several other Places; but, *Lib.* 2. *de Cur. ad Glauc.* he says, that by κατ' ἰξίν *Hippocrates* means the very same as κατ' ἰσότητα, "according to Equality." This Expression, κατ' ἰξίν, is often used by *Hippocrates*, particularly 6 *Epid. Sect.* 2. *Aph.* 10. and 2 *Epid.* where, in Diseases, and the Motions of Nature, we are advised always to regard their Direction, and whether they proceed κατ' ἰξίν, in a direct Course. And, 6 *Epid. Sect.* 1. *Aph.* 5. he mentions, among other Symptoms which relieve under a Pain of the Kidneys, attended with Vomitings, and a Numbness of the Thigh, τὴν κατ' ἰξίν, which directly answered, or was on the same Side with the Part affected. Again, 1 *Epid. Aeg.* we are told, that the Patient, on the eighth Day, was afflicted with a Pain in the Groin, and that a Tumor arose in the same Place, σπληνός κατ' ἰξίν, "directly answering to the Spleen. And, 3 *Epid.*

Aeg. 3. the Spleen, he says, was tumefied, and the Thigh, κατ' ἰξίν, "answering it on a direct Line," was seized with a Pain. And, 4 *Epid.* he says, that the Ear, κατ' ἰξίν τῷ σπληνός καὶ τῷ πλάτῃ, "answering to, or on the same Parts with the Spleen, and the Side," was seized with a Pain. And a little after, in another Case, he says, a small Quantity of Blood was discharged ἐκ τῷ κατ' ἰξίν, that is, "from the (Nostril) answering in direct Position to the diseased Spleen."

ἰξίς is a Word peculiar to *Hippocrates*, and most commonly imports Rectitude, or a direct Way and Progress. But this Rectitude, says *Galen*, *Com.* 3. in *Lib. de Fract.* is to be understood not only proceeding with the Length of the Body, but, also, with its Breadth, as being no other than the direct and nearest Course of the Ducts, or Passages, appointed for the commodious Derivation of the Humours: And these Passages are not all of one Kind, but various, some disposed according to the Length of the Body, others according to its Breadth, and others tending from the anterior to the posterior Parts.

Besides the before-mentioned Significations, κατ' ἰξίν imports "perpendicularly," as *Lib. de Fract.* βάλλεσθαι μὴ ἐν χρεῖ τὸ ὀρθόν κατὰ τὴν ἰξίν τῷ ἔλκε, "A Bandage must, therefore, be applied directly, or in a perpendicular Direction, upon the Ulcer." In which Place *Hippocrates* blames the Surgeons of his Time, for applying a Bandage ἐνθεν καὶ ἐνθεν, "on this Side and that Side;" which was a proper Expression, as *Galen* understood it, to hint a Reason for applying a thin Piece of Lead, not on this or that Side of the Tumor, but κατ' ἰξίν, directly or perpendicularly upon it. *Hippocrates* is always pleased when Things take their Course κατ' ἰξίν, for then Nature is their Guide, and they are carried τῇ ἐκείνης ἀρίστῃ, "with a rational View to Excretion;" which is a well-known Maxim, established by long Observation, and approved by *Hippocrates*, who has given it, as it were, the Sanction of a Law, when he talks of Pains of the Sides, Tensions of the Hypochondria, Tumors of the Spleen, and Hæmorrhages from the Nostrils, and the like, κατ' ἰξίν. Thus, 2 & 6 *Epid.* for a Pleurisy, he directs a Vein to be opened κατ' ἰξίν; an Abscess arises in the Skin κατ' ἰξίν; in a Phlegmon of the Liver, an Hæmorrhage is excited κατ' ἰξίν; an Abscess arises and breaks κατ' ἰξίν. In 6 *Epid.* *Herophon* had a Swelling of the Spleen, and, soon after, was afflicted with an Abscess of the Groin, and, soon after, with another in the Leg, both κατ' ἰξίν, the Event of which was the Recovery of the Patient beyond all Expectation. And *Heropythus*, 3 *Epid. Aeg.* 9. had a frequent Vicissitude of Deafness and Pain in the Right Ischion; and such was the Nature of the Disorder, that whenever the Pain in the Ischion ceased, the Fever was exasperated, and the Deafness increased, but were both mitigated while the Pain of the Ischion continued. From the Premises we may rationally conclude, that all morbid Matters, which take their Course from the lower Parts upwards, or the contrary, κατ' ἰξίν, seek a Place, where they may settle, or be discharged, since they are under the Direction of Nature, tend to Excretion, and are not hurried by an Orgasmus. Hence, also, we are taught to act in Imitation of Nature; for, says our great Master, ἀκρίως ἢ ῥίπτει τὸ σῆμα, "the Sense of which is, "that we are to lead, where Nature shews the Way." And as we have Reason to expect a good Event when Things take their Course κατ' ἰξίν, so the contrary is to be feared from a Direction or Tendency ἀνὰ πάλιν, "preposterously," that is, contrary to the other. See ANAPALIN. Thus, in *Cons.* it is said τὸ ἀνὰ πάλιν αἱμορραγίαν ποιεῖν, "an Hæmorrhage which happens preposterously is pernicious;" for Example, if in a Tumor of the Spleen the Hæmorrhage falls on the Right Side; for Right with Right, and Left with Left, are ὁμόφυλα καὶ ἐνπεσούσια, "con- social and conatural," says *Hippocrates*. Whence Nature contends with more Strength and Vigour against Diseases, when Things tend κατ' ἰξίν, which is more to be regarded than the Course and Situations of the Veins.

IXODES, ἰξόδες. Viscous. From ἰξός, Bird-lime, or Gum.

IXOS, ἰξός, is properly the viscid tenacious Juice, which transudes through the Barks of many Trees, and adheres to the Surface. It is translated *Viscum*, Birdlime. See VISCUM.

IXYS, ἰξύς, or ἰξύς. *Galen* says, that the ἰξύς are understood by some to mean the Ossa Iliæ; some the Part immediately above them; but he thinks, from a Passage in *Homer*, *Odys.* 5. *ver.* 231. it means those Parts of the Body which are, on each Side, interposed betwixt the Bones of the Breast and Ossa Iliæ. I suppose he means the spurious Ribs, and the Ossa Iliæ. By some it is understood of the Loins; by others, of the Flanks.

IYNX. The Name of a Bird, called, in *Latin*, *Torquilla*; in *English*, the Wry-neck.

K.

K. For the Signification of this Letter in the Chymical Alphabet, see ALPHABETUM CHYMICUM.

KAATH. See the fifth Species of ACACIA ; where I find the Word printed *Raath*, by Mistake, instead of *Kaath*.

KAAWY. A Sort of Drink used by the *Indians*, made of Mays.

KABNOS. A barbarous Word for CAPNOS, Smoke.

KACHIMIA, or **KAKIMIA.** A barbarous Word for CA-COCHYMIA.

KADALI. Ray, in *Hist. Plant.*, takes notice of four Shrubs called by this Name.

The first is the

Kadali. H. M. *Baccifera Indica fructu umbilicato quinque-capsulari polyspermo.*

It grows in the *East Indies*. The Fruit, when ripe, is eaten by the Inhabitants, and it is used for dying Calicoes. Of the tender Leaves, boil'd in Oil, an Ointment is made, which is good for Aphthæ, and Exulcerations of the Mouth and Gums. The Juice of the Leaves, taken in an Infusion of Rice, is good for the Colic.

The second is the

Ben-Kadali. H. M. *flore albicante, fructu viridi, pulpa albicante.*

The Fruit of this is eaten by the Inhabitants, but is of no Use in Medicine.

The third is the

Katou-Kadali. H. M. P. 4. T. 43. p. 91. *floribus minoribus, fructus cortice aspero.*

The Leaves powder'd, together with the Leaves of Pepper, and taken with Sugar, ease a Cough, and cause Expectoration.

The fourth is the

Tsjerou-Kadali foliis, floribus & fructibus minoribus.

From the Leaves, Bark, Flowers, and Fruit, boil'd in Oil of Sefamum, an Oil is made, which is a powerful Remedy against Aphthæ, Fissures of the Tongue, and Pustules of the Palate and Tongue. It is farther said to cure an Epilepsy, and Cynic Spasms, if the Head is anointed therewith. *Rail Hist. Plant.*

KAIB. *Rulandus* explains this, *Lac Acidum, coagulatum.* Acid and coagulated Milk.

KAIDA. Ray, in his *Historia Plantarum*, takes notice of four Shrubs, which are called by this Name, differing only with respect to their Fruits. The first is the

Kaida. H. M. The Juice of the Leaves and Roots are used by way of Bath for Manias. The Flowers, which are very fragrant, taken internally with Saunders and Cumin, and, at the same time, bruised and applied to the Hypogastrium, are said to increase Venereal Vigour. Apozems are prepared of the Root, which are said to be effectual in a Dysury. Of the Juice of the Root, also, by boiling, an Oil is prepared, which is said to be good in the Gout.

The second is the *Kaida Taddi.* H. M.

The Juice of the tender Leaves, taken with Sugar, cures a Dysentery.

The Juice of the ripe Fruit, mix'd with Sugar, is recommended against Aphthæ.

The third is the *Perin-Kaida-Taddi.*

The fourth is the *Kaida-Tsjerria.*

The Fruits of all these are extremely large, and are eaten by Elephants, and some of the Inhabitants.

KAIGANG. A Name for the *Ficus* ; *Malabarensis* ; *folio cuspidato* ; *fructu rotundo, parvo, gemino.*

KAKA-MOULLON, or *Kaba-Mullu.* H. M. Call'd, also, *Siliquosa Indica, flore papilionaceo, decapetalo, Siliquis latis monospermis.* The Name of a siliquose Tree, which grows in the *East Indies*, about *Chenotti*, *Parou*, and *Warapoli*.

The Bark, boil'd in Milk, is said to cure a Diabetes and Gonorrhœa. *Rail Hist. Plant.*

KAKA-NIARA. H. M. Call'd, also, *Baccifera Indica, fructu oblongo, Calyce insidente, monopyreno, officulo compresso.* An *East Indian* Tree, which grows in *Porta* and *Montan*.

The Juice express'd from the Leaves, and taken with the milky Liquor of the Cocoa-nut, kills Worms ; and expels them, if taken with Brine. *Rail Hist. Plant.*

KAKA-TODDALI, otherwise call'd, *Frutex baccifer Indicus spinosus, trifolius, floribus spicatis, fructu plano, rotundo tricoeco.*

A low Shrub, which grows in all Parts of *Malabar*.

An Ointment is prepared of the Root, and green Fruit, fry'd in Oil, which some recommend against the Gout. Baths are made of the Leaves boil'd in Water, which are said to be serviceable in an Anasarca, Cachexy, oedematous Tumors of the Legs, and

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other Disorders of the like Kind, proceeding from a Redundance of Serum.

KAL is explain'd by *Rulandus*, and *Johnson*, *Sal de Torjense*, but I don't know what they mean.

KALD. Vinegar. *Rulandus.*

KALED. In *Senior Zaidib's Tabula Chymica*, this Term occurs, which imports, flying, or volatile.

KALI.

The Characters are ;

The Plant resembles the Aizoon, and is succulent : The Flower is rosaceous, according to *Tournefort* ; but apetalous, according to others : The Fruit is globous, and membranaceous, containing one Seed, intorted like the Shell of a Periwinkle, in the Centre of the Calyx.

Boerhaave mentions three Species of this Plant ; which are,

1. Kali, majus ; cochleario semine. C. B. P. 289. *Rail Hist.* 1. 212. *Ger. Emac.* 535. *Tourn. Inst.* 247. *Boerb. Ind. A.* 2. 93. *Kali. Offic. Kali cochleatum majus.* Park. *Theat.* 279. *Cal. vulgare.* J. B. 3. 702. *Salicornia altera.* Ger. 428. GLASSWORT.

This Kali, which is only to be found in the warmer Countries, grows to be a Foot or two high, with thick, fat, brittle Stalks like Purslane, bearing long, roundish, fleshy Leaves, having here-and-there small, yellow, stamincous Flowers, which are succeeded by Seed-vessels, twisted up Snail-fashion. It grows upon the Coasts of *Spain*, *Italy*, and the Southern Parts of *France*.

Of this Plant is made the Sal Alkali, or the Soda, or the true Cineres Clavellati, of which the finest Glass is made : They burn it in great Heaps, which, by the Vehemence of the Fire, melt, and run into blackish Lumps of hard Salt.

The Juice of this Plant is cathartic and diuretic, accounted good to purge phlegmatic watery Humours, and serviceable against the Dropsy and Jaundice, and Obstructions of the Liver and Spleen ; but it is seldom, or never, used in *England*. Because a great Quantity of fixed Salt is drawn from the Ashes of this Plant, the Name of *Alkali* has been given to the fixed Salt of all others. The best *Venice* and *Castile* Soap is made of the Lixivium of these Ashes. *Miller's Bot. Off.* See ALCALI.

2. Kali ; spinosum ; foliis longioribus & angustioribus. T. 247.

3. Kali ; Ægyptium ; villosum ; flore stellato. *Lippii. Boerb. Ind. alt. Plant. Vol. 2. p. 93.*

Kali minus. A Name for the *Chenopodium* ; *sedi folio minimo ; folio Kali semine splendente ; annuum.*

Kali fruticosum. A Name for the *Chenopodium* ; *sedi folio minimo ; frutescens ; perenne.*

Kali gemulatum. A Name for the *Salicornia*.

Besides the foregoing Species of Kali, *Dale* mentions the following ; which is,

Kali Hispanicum, Cod. Med. 63. *Kali Hispanicum supinum annuum, sedi foliis brevibus.* Aët. Reg. Par. Ann. 1719. p. 93. Fig. p. 98. ALICANT GLASSWORT.

There are several Species of Kali found in many Places about the Sea-coast. *Miller* takes notice of eighteen.

KAL-TODDAVADDI, H. M. otherwise call'd, *Mimosa Malabarica, flore pentapetalo, siliquis lanuginosis.*

An Evergreen which grows in *Malabar*, to which I find no medicinal Virtues ascribed.

KAMAR, or *Camar.* Silver. *Rulandus.*

KAMIR. Ferment. *Rulandus.*

KANDEL. Ray, in his *Hist. Plant.*, takes notice of six Shrubs, which are called by this Name. The first is the

Kandel. H. M. or *Frutex Indicus ramis demissis radices agentibus se multiplicans, fructu oblongo, terete corticoso.*

The Roots are used in staining Linen ; and the Leaves serve for Manure. An Ointment is made of the Bark rub'd with Oil, which is recommended against Lassitude.

The second is the

Karil-Kandel. H. M. or *Kanil-Kandel. Candela arbor floribus in eodem pediculo ternis, fructu angustiore.*

The Bark, boil'd in Whey, cures Gripes of the Belly, and removes Pains and Flatulences.

The third is the

Pee-Kandel. H. M. or *Candela Indica fructu longiore & crassiore, flore tetrapetalo.*

It agrees in Virtues with the *Tsjerou-Kandel*.

The fourth is the

Tsjerou-Kandel. H. M. or *Candela Indica humilior flore exalbido pentapetalo, fructu majore.*

The Bark, together with dry'd Ginger, or long Pepper, is call'd *Tripali*, by the Inhabitants of the Country where it grows, which, bruised with Rose-water, is said to cure a Diabetes.

The fifth is the

Pou-Kandel, H. M. or *Candela Indica floribus pentapetalis odoratis. fructu minore incurvo.*

The sixth is the

Kada-Kandel, H. M.

The two last have no medicinal Virtues ascrib'd to them.

KANDEN-KARA, H. M. or *Baccifera Indica, floribus racemosis, fructu plano, rotundo, dipyreno.*

The Name of a Tree, which grows in *Malabar*, to which I find no medicinal Virtues ascrib'd. *Raii Hist. Plant.*

KANFOR. Tin. *Rulandus.*

KANELLI. The Name of two *East-Indian* Trees. The first is the

Pelluta-Kanelli, H. M. or *Baccifera Indica, Fructu umbilicato, racemoso, candido, monoppyreno, rotundo.*

This is an evergreen Tree, of a moderate Size, which always flowers, and bears Fruit. The Leaves dry'd, reduc'd to Powder, and exhibited in Milk, cure a Diarrhoea. Baths are prepar'd of Decoctions of the Leaves, which are said to be serviceable in Pains of the Limbs of all kinds.

The second is the

Tsjerou Kannelli, which resembles the preceding. *Raii Hist. Plant.*

KAPA-MARA, H. M. The same as *ACAJAIBA*; which see.

KAPRILI. Sulphur. *Rulandus.*

KAR. *Rulandus* explains this, *Gemma lucens sicut Ignis.*

KARA-ANGOLAM, H. M. or *Arbor Indica, Prunifera, Fructu umbilicato, corticoso, Persici simile.*

A very large, tall Tree, which grows in many Parts of *Malabar*, always bearing Leaves, Flowers, and Fruit.

A very good vulnerary Ointment is made of the Leaves boil'd in Oil. The Root is cathartic, and purges off serous and pituitous Humours. The Fruit is extremely heating, and therefore seldom eaten. *Raii Hist. Plant.*

KARABE. The same as *Carabe*. See *AMBERA*.

KARABITUS. An *Arabic* Term, importing a *Phrenitis*, or *Delirium*.

KARA-KANDEL. See *KANDEL*.

KARATAS. The *Penguin*, or *wild Ananas*.

The Characters are;

It hath a tubulous Bell-shap'd Flower, which is divided into three Parts, at the Mouth; from whose Calyx arises the Pointal, fixed like a Nail in the hinder Part of the Flower; which afterwards becomes a fleshy, almost conical Fruit, which is divided by Membranes into three Cells, which are full of oblong Seeds.

There is but one sort of this Plant at present known; which is,

Karatas foliis altissimis, angustissimis & aculeatis. Plum. Nov. Gen.

Father *Plumier* has made a great Mistake in the Figure and Description of the Characters of this Plant, and the *Caraguata*; for he has joined the Flower of the *Caraguata* to the Fruit of the *Karatas*, and vice versa.

This Plant is very common in the *West-Indies*, where the Juice of its Fruit is often put into Punch, being of a sharp acid Flavour. There is, also, a Wine made of this Fruit, which is very strong; but it will not keep good very long, so is only for present Use. This Wine is very intoxicating, and heats the Blood; therefore should be drank very sparingly.

In *England* this Plant is preserved as a Curiosity; for the Fruit seldom arrives to any Degree of Perfection in this Country; and if it were to ripen as thoroughly here, as in its native Country, it would be little valued, on account of its great Austerity; which will often take the Skin off from the Mouths and Throats of those People who eat it incautiously. *Miller's Dictionary, Vol. 2.*

KARENA, in *Paratelsas*, is the twenty-fourth Part of the smallest Drop.

KARIL, H. M. or *Prunus Pentaphyllos Malabarica, fructu Calyci insidente.*

A very large pruniferous Tree, which grows in *Malabar*. Of the Roots, Leaves, Fruits, and other Parts of which, boil'd in Water, Baths are prepar'd, which are esteem'd excellent against all manner of Pains in the Joints.

KARIN-TAGERA, H. M. A small Tree of *Malabar*, somewhat resembling the Hazel, but of the evergreen Kind.

An Oil is prepar'd of the Root, which is said to prevent the Hair from falling off. *Raii Hist. Plant.*

KARI-VETI, H. M. or *Arbor baccifera Indica, racemosa, Acinis oblongis monoppyrenis, Flore tetrapetaloide.* A Tree of a moderate Size, which grows in *Malabar*.

The expressed Juice of the Leaves, exhibited with Whey, is an excellent Emetic, and brings away pituitous and serous Humours. *Raii Hist. Plant.*

KASAM. Iron. *Rulandus.*

KASJAVA-MARAM, H. M. or *Arbor baccifera Indica racemosa, tetrapetala flore, Fructu rotundo monoppyreno.*

A Tree which grows in *Malabar*, of a moderate Size. Of the Leaves, boil'd in Oil, together with fresh Turmeric, a Liniment is made, which is recommended against watery Pustules.

The Juice of the Leaves, applied behind the Ears, in Lint, cures Lippitude. An Ointment is, also, prepar'd of the Root, boil'd in Oil, which is good against the Gout and Head-ach.

KATIMIA. A Name for *Cadmia*, *Lapis Calaminaris*, or Turry. *Rulandus.*

KATK N. See *JULUS*.

KATMER-BOUHOOR, *Turcarum*. Cornut. The Name of an oriental Species of *Cyclamen*. *Raii Hist. Plant.*

KATOU-CONNA, H. M. or *Arbor Indica filiquosa, flore pentapetalo, filiquis in Spiram contortis, lanuginosis.*

A tall Tree, which grows in *Malabar*, which is perpetually green, and always bears Flowers and Fruit.

A Decoction of the Leaves preserves the Hair from growing white, and cures the Leprosy; and the Bark, made into a Paste, with Sugar, has the same Virtues. *Raii Hist. Plant.*

KATOU-INDEL, H. M. or *Palma sylvestris Malabarica, folio acuto, fructu Pruni facie*, D. Commelin.

A Sort of Palm, which grows in *Malabar*.

The poor People of the Country chew the Fruit of this Tree; like that of the *Fausel*, or *Arcca*, with *Betel*, and calcin'd Oyster-shells. The Leaves, Fruit, and other Parts of this Tree are very powerful Astringents, and, therefore, proper for stopping any sort of Fluxes. The Inhabitants make Caps of the Leaves.

KATOU KALESIAM, H. M. or *Sorbus spuria Malabarica Katon-Kalesiam dicta.*

A sort of Service-tree, which grows in *Malabar*. *Raii Hist. Plant.*

KATOU-KARVA, H. M. or *Canella sylvestris Malabarica. THE GREAT WILD CINNAMON-TREE OF THE MOUNTAINS.*

This is not much unlike the Cinnamon-tree of *Ceylon*. Baths are made of the Leaves of this Tree, boil'd in Water, which are in Esteem against any sorts of Pains of the Joints. A Drink is prepared of the Bark of the Root, boil'd in Water, together with Cardamoms, and Nutmeg, which is said to be effectual in Gripings of the Belly. *Raii Hist. Plant.*

KATOU-NAREGAM, H. M. or *Malus Limonia Malabarica fructu umbilicato.*

A tall Tree of *Malabar*, which bears a small sort of Lemon. The Juice of the Leaves is esteem'd an excellent Errhine, for purging the Head. Taken with Pepper, Ginger, and Sugar, it cures Coughs, and other Disorders of the Lungs excited by a cold Cause. Of the Leaves, boil'd in Water, Baths are prepared, which are in Esteem against Lassitude, and Pains in the Limbs. *Raii Hist. Plant.*

KATOU-PATSJOTTI, H. M. or *Frutex baccifer Malabaricus fructu calyce excepto, sulcato, tripyreno.*

A small Shrub, which grows in *Malabar*, of no Use in Medicine. *Raii Hist. Plant.*

KATOU-PULCOLLI, H. M. or *Frutex Indicus flore dipetalo, capsula oblonga, binis cellulis bina semina continente.*

A Shrub which grows in sandy and open Places in *Malabar*.

The medicinal Uses of the Seeds are, in Pains of the Stomach, and internal Inflammations; the external Use is in the Itch and Herpes. *Raii Hist. Plant.*

KATOU-THEKA, H. M. or *Prunifera Indica fructu umbilicato racemoso Avellane magnitudine.*

It grows in *Malabar*, and the Fruit is used instead of that of the *Arcca*, to chew with *Betel*. The Bark dried, and reduc'd to Powder, restrains the exorbitant Heat of the Bile. *Raii Hist. Plant.*

KATOU-TSJACA, H. M. or *Arbor Indica fructu aggregato globoso, Katu Isjaka dicta.*

A tall Tree, which grows in *Malabar*, flowering and bearing Fruit, all the Year round. The Juice, expressed from the Fruit, cures Pains of the Belly.

KAUKI, *floribus odoratis*. *Breyn.* A Tree, which grows in *Java*, bearing very fragrant small Flowers, from which a Water is distil'd, possess'd of much the same Virtues as Rose-water.

KAYE-BAKA. The Species of *Nerium*, or *Oleander*, mentioned by *Ray*, in his *Hist. Plant.*

KAYL. *Lac Acetosum*, sour Milk. *Rulandus.*

KAYSIR. *Spuma Maris*. The Foam of the Sea; properly the Pumice-stone. *Rulandus.*

KAZDIR. *KASDIR*, or *KASIR*. Tin. *Rulandus.*

KEDANGU, H. M. or *Siliquosa Malabarica, filiquis spithamais, angustissimis, contortis.*

A Shrub which grows in *Malabar*. Baths prepared of a Decoction of the Leaves are said to discuss all Sorts of Tumors. The Juice of the Flowers is an excellent Remedy for the Epilepsies and *Aphthae* of Children. *Raii Hist. Plant.*

KEIRI. A Name for the *Leucoium*; *luteum*; *vulgare*.

KELP is a fixed Salt, or particular Species of Pot-ash, procured by burning the Weed called *Kali*, which grows frequent on some Shores; and thus reducing it to solid Lumps, or Cakes, of Ashes, that run into a Liquor somewhat like Oil of Tartar, *per Deliquium*, by the Moisture of the Air.

KEMP-

KEMPFERA.

This Plant was so named by the late Dr. *Houftoun*, in Honour of the Memory of Dr. *Kempfer*, a learned Botanist.

The Characters are;

It hath an anomalous Flower, consisting of one Leaf, and divided at the Brim into five Parts: After the Flower is parted, the Pointal becomes a hard Fruit, which is divided into four Cells, which are full of small Seeds.

We know of but one Sort of this Plant; which is,

Kempferia frutescens, *Chamaedryos folio*, *floribus spicatis cœruleis*. *Houft.*

This Plant is figured and described in the *Paradisus Batavus*, under the Title of *Veronica similis fruticosa Curassavica*, *Tencrii foliis*, *flore galericulato*.

It is very common in *Jamaica*, and several other Islands in the *West Indies*, where it grows to the Height of three or four Feet, and becomes woody. The Flowers are produced in Spikes, at the Extremity of the Branches, which are of a fine blue Colour.

KENKEL. The Name of an Animal, mentioned in the *Turba Philosophorum*, *Theatr. Chym. Vol. 5. p. 12.* whose entire Juice is there said to be of a Tyrian, or Purple-colour.

KENNE. A Name of the Stone generated in the Eye of a Stag.

KERATOPHYTON. The Name of a submarine Plant.

The Characters are;

It is of a viscid or glewish Consistence, pellucid like Horn, and frequently covered with a cretaceous Crust; sometimes of elegant and various Colours. *Boerhaave*, *Index Plant.*

Boerhaave mentions sixteen Species of this Plant, none of which have any medicinal Virtues attributed to them at present, that I know of, except the seventh; for which see *CORALLIUM NIGRUM*.

KERMES. See *CHERMES*.

KERSYDROS. See *CHERSYDROS*.

KETMIA.

The Characters are;

The Leaves resemble those of the Mallows, or Vervain Mallows; the Flower is like that of the Mallow; the Fruit is divided into many Partitions, the Top of which opens when ripe, and discloses a great many Seeds.

Boerhaave mentions twenty-two Species of this Plant; which are,

1. Ketmia; Syrorum quibusdam. C. B. P. 316.
2. Ketmia; Syrorum; flore purpuro-violaceo. T. 99.
3. Ketmia; Syrorum; flore albo.
4. Ketmia; Syrorum; floribus ex albo & rubro variis. T. 99.
5. Ketmia; Sinensis; fructu subrotundo; flore simplici. T. 100.
6. Ketmia; Sinensis; fructu subrotundo; flore pleno. T. 100.
7. Ketmia; Africana; populi folio. T. 100.
8. Ketmia; Africana; populi folio subius incano; & caule virescente. T. 100.
9. Ketmia; Ægyptiaca; semine moschato. T. 100. See *ALCEA INDICA*.
10. Ketmia; Indica; vitis folio; parvo flore. T. 100.
11. Ketmia; Indica; vitis folio; ampliore. T. 100.
12. Ketmia; Americana; folio Papayæ; flore magno, flavescente, fundo purpureo; fructu erecto, pyramidalis, hexagono; semine rotundulo; sapore fatuo. *Prægn*
13. Ketmia; Indica; Gossypii folio; Acetose sapore. T. 100.
14. Ketmia; quæ Althæa; magna; folio aceris; cortice cannabinio; floribus parvis; semina rotatim in summitate caulium, singula singulis cuticulis cooperta ferens. *Banister*.
15. Ketmia; Americana; paludosa; folio scabro ulmi acutiore.
16. Ketmia; Brasiliensis; folio Ficus; fructu pyramidato, sulcato. T. 100.
17. Ketmia; vesicaria; vulgaris. T. 101.
18. Ketmia; vesicaria; Africana. T. 101.
19. Ketmia; Afra; vesicaria; foliis profundius incis, vix crenatis.
20. Ketmia; Indica; aculeata; foliis diglatis. T. 101.
21. Ketmia; Virginensis; folio interiori Ulmi, superiori Aceris.
22. Ketmia; Indica; folio Gossypii; sapore fatuo. *Boerb. Ind. alt. Plant. Vol. 1. p. 271.*

The *Historia Plantarum*, ascribed to *Boerhaave*, informs us, that all the Species of this Plant, except those which taste like Sorrel, agree in Virtues with Mallows. And that the Flowers are possessed of the same Virtues as those of Mallows.

KEYRI. A Name for the *Leucoium*; *luteum*; *vulgare*.

KIBRIC. *Rulandus* defines this, the Parent, and First Matter, of Mercury, and all fusible and liquifiable Substances. The Philosophers Stone is, also, thus called.

KIBRITH. Sulphur. *Rulandus*.

KIBRIUS, or KEBRIC. Arsenic. *Johnson*.

KIDIBENGI. A Name by which those are call'd who take *Banque*, as an Exciter to Venerary.

KIKI, *Ind.* The Name by which *Dioscorides* calls the *Ricinus*.

KINA-KINA. A Name for the Peruvian Bark. See *QUINA QUINA*.

KIRATH. A Weight, equal to four Grains. *Blancard*.

KISSES. *Rulandus* explains this, *Sal e Riva*, vel *Fluvio*.

K.SMESEN. See *ACACALIS*.

KIST. Fourteen Grains. *Paracelsus*.

KNAWEL.

The Characters are;

The Calyx is quinquesid, and expanded in five acute Segments like a Star; the Flowers are stameneous, resting on the Calyx; placed on the Summits, and at the Divarications, of the Branches; each Calyx contains one Seed.

Boerhaave mentions two Species of this Plant; which are,

1. Knewel. *Offic. Boerb. Ind. A. 2. 93. Knewel folio & flore viridi*. Buxb. 174. *Polygonum Scleroides* five *Knewel*. Ger. 453. *Emac.* 567. *Polygonum Germanicum* five *Knewel Germanorum*, Park. 447. Raii Hist. 1. 213. Synop. 68. *Polygonum III. Dodonæi* five *tenuifolium*. J. B. 377. *Polygonum angustissimum & acuta* vel *gramineo folio*, minus repens. C. B. 281. *Alchimilla spinosa* *gramineo folio*, minore flore. Tourn. Inst. 508. GERMAN KNOT-GRASS.

It grows in sandy Fields. The Herb is in Use, which agrees in Virtues with the *Polygonum Latifolium*, being drying, astringent, and vulnerary; and is esteem'd lithontriptic by some.

2. Knewel; folio Alfinis, glabro; spiculis plurimis. *Polygoni*, vel *Linifolia*, per terram sparsa, flore scorpioides. J. B. 3. 379. *Boerb. Ind. alt. Plant. Vol. 2.*

Besides the foregoing Species of *Knewel*, *Dale* mentions the following; which is the

Polygonum cocciferum. *Offic. C. B. P. 281. Polygonum Polonicum cocciferum*. J. B. 3. 378. *Knewel incanum*, flore majore perennans. Raii Hist. 1. 213. Synop. 3. 160. *Alchimilla gramineo folio*, majore flore. Tourn. Inst. 508. POLONIAN KNAWEL. See *Coccus*.

It is esteem'd drying, astringent, and vulnerary.

KOBALTUM. See *CONALTUM*.

KOLERUS. A dry Ulcer. *Paracelsus*.

KOLTO. A Name for the *PLICA POLONICA*.

KOPHI. The same as *CYPHI*; which see.

KREUPELBOOM. A Name for the *Canocarpodendron*; *folio crasso, nervoso, lanuginoso, supra crenato, ibique limbo rubro*; *flore aureo*; *cono facile deciduo*.

KRISSIA BOOM. A Name for the *Palma*; *Gutierrezis*; *vinifera*.

KUHUL. Lead-ore, or the Lead of the Philosophers. *Rulandus*.

KUMEN. *Castellus* explains this by *Coadunatio*.

KURIA, KYMIA, or KYMUS. A Mass. *Rulandus*.

KUTUBUTH is properly the Arabian Name for a Water Spider, an Insect perpetually in Motion. Hence the Name has been transferred to a Species of Melancholy, called by *Sennertus*, *Melancholia Errabunda*. See *MELANCHOLIA*.

KYMENNA is explained by *Rulandus*, *Ampulla*.

KYMIA. See *KURIA*. A chymical Chucurbit is, also, thus call'd. *Rulandus*.

KYMI' *elevatum*. White sublim'd Chlorubar. *Rulandus*.

KYMOLEA. The Slime, or Mud, gather'd under a Grinding Stone, call'd, also, *Chymolea*. *Rulandus*.

KYNA. Opopanax. *Rulandus*.

KYRAM. Snow. *Rulandus*.

L.

FOR the Signification of L in the Chymical Alphabet, see ALPHABETUM CHYMICUM.

LABDANUM. See LADANUM.

LABE, λαβη, from λαμβάνω, to seize. The first Access of a Fever; but particularly of a febrile Paroxysm, in periodical Fevers.

LABELLA LEPORINA. The same as LABIA LEPORINA.

LABEO. The same as BROCHUS.

LABIA. The Lips.

The Cheeks and Lips form the Sides and Entry of the Cavity of the Mouth. They are formed in general by the Connection of several fleshy Portions, of different Breadths, fixed round the convex Sides of the two Jaws, cover'd on the Outside with the Skin and Fat, and lined on the Inside by a glandulous Membrane. Besides this, the Lips seem, likewise, to have a soft spongy Substance in their Composition, which swells and subsides on certain Occasions, independently of the Action of the Muscles belonging to them; and is mixed with Fat.

The Substance which forms the red Border of the Lips, is very different from the rest of the Skin, being a Collection of very fine, long, villous Papillæ, closely connected together, and cover'd by a fine Membrane; which seems to be both a Continuation of the Epidermis, and of that Pellicle which covers the glandulous Membrane of the Cavity of the Mouth: This Substance is extremely sensible, and very painful, when the outer Membrane is by any Accident destroy'd. The internal Membrane of the upper Lip forms a small middle Frænum above the first Dentes Incisorii.

The Gums are that redish Substance, like Leather, which covers the two Sides of the whole alveolar Border of both Jaws, insinuates itself between all the Teeth, surrounds what I call the Collar of each Tooth in particular, and adheres very strongly to them. Therefore the outer and inner Gums are continuous, and, both together, form just as many Openings as there are Teeth.

The Substance of the Gums is of a very singular Structure, very compact and elastic. It is not immediately fixed to the Bones of the Jaws, but by the Intervention of the Periosteum, with which it is perfectly united; and it is cover'd with a fine, strong, even Membrane, which sticks very close to the Substance of the Gums, and seems to be a Continuation of that thin Membrane which goes to the Lips and Cheeks, and of that which goes to the Tongue.

The Arteries which go to the Lips, Cheeks, and Gums, are Ramifications of the external Carotid, and, principally, of the external and internal maxillary Branches. See ARTERIA. The Veins are Ramifications of the external anterior Jugular. See VENA.

The Nerves of these Parts come from the Maxillaris superior, and inferior, which are Branches of the Fifth Pair; and, also, from the Portio Dura of the Auditory Nerve, or Sympatheticus minimus, the Ramifications of which are spread in great Numbers on all these Parts, and communicate, in a pretty singular manner, with the Nerves of the Fifth Pair in several Places.

There is so much Variety in the Muscles of the Lips, in different Subjects, that it is not at all surprising to find Anatomists disagree in the Description of them. In some Subjects, Portions of these Muscles are wanting; in some they can scarcely be distinguished, because of the Paleness and Attenuation of the Fibres; and in others there are really some particular Fasciculi, which are not generally to be found. About fifteen Years ago, I, says Winslow, dissected an old Woman; in which Subject alone I observed a great many singular Things, which I have not met with in great Numbers of other Subjects more proper for Dissection: In this Subject the Muscles of the Face in general were very much multiplied, and very distinct.

I have already mentioned the Muscles of the Lips, under the Article CAPUT; but, as Winslow takes notice of several Things relative to these, which are there omitted, I shall insert his Account of them.

The Muscles of the Lips are usually divided into common and proper: The common Muscles are those which end at the Angles or Commissures of the two Lips; and those are proper, which are fixed in one Lip only, which are again subdivided into proper Muscles of the upper Lip, and proper Muscles of the under Lip. All these Muscles have particular Names; some of which are taken from something in the Conformation of the Muscles; some from the Insertions, or Situation, and some from the Uses attributed to them.

I shall here describe those which I am able to shew, without mentioning those which I have not hitherto found, though I am in no Doubt about the Accuracy of these great Anatomists, who have published Accounts of them, and who have, besides, given unquestionable Proofs of their being faithful and judicious Observers. I shall lay aside the Names taken from the supposed Uses; because I am still uncertain about some of the Uses attributed to them; and, also, to encourage young Anatomists, and even Beginners, to endeavour at guessing, at which they may, perhaps, succeed better than I have done.

The Muscles, to which I confine myself, may be enumerated in the following Order.

Musculi Communes. Semi-orbiculares, Supra-semi-orbiculares, Buccinatores, Zygomatici Majores.

Musculi proprii Labii superioris. Zygomatici Minores, Canini, Incisorii Laterales, Incisorii medii.

Musculi proprii Labii inferioris. Triangulares, Triangularium Collaterales, Quadratus, Incisorii inferiores, Cutanei.

The upper Lip is sometimes moved by the Action of the Muscles of the Nose, especially of the Pyramidales; and both Lips, either jointly or separately, are moved by Suction, without the Assistance of the Muscles belonging to them.

The *Semi-orbiculares* are commonly looked upon as one Muscle, surrounding both Lips, from whence it is called *Orbicularis*; but, when we examine carefully the Angles of the Lips, we find that the Fibres of the upper Lip intersect those of the under Lip, and we easily distinguish the muscular Arch of one Lip from that of the other; and for this Reason I divide this Muscle into two, and I call them either by the common Name of *Semi-orbicularis*, or I call one *Semi-orbicularis superior*, and the other *Semi-orbicularis inferior*; but the Name of *Semi-orales* would be still more proper.

The superior *Semi-orbicular* Muscle is oftentimes broader than the inferior; and it has this Peculiarity, also, that all its Fibres do not go to the Corner of the Mouth, but terminate by degrees, between the Middle and Extremities of this Arch, nearly like the *Semi-oval* Fibres of the upper Palpebra. The inferior *Semi-orbicular* Muscle is commonly more uniform in the Disposition of its Fibres.

The *Supra-semi-orbiculares* are Fibres which increase the Breadth of the two lateral Portions of the superior *Semi-orbiculares* upward; and they appear at first Sight to be one continued Arch, like the Muscle last named; but, being narrowly examin'd, they will be found to be separated by a small Interstice, lying betwixt their contiguous Extremities, which are fixed in the Gums, opposite to the Edges of that cutaneous Fossula that runs down from the Septum Narium to the middle of the Edge of the upper Lip. Their other Extremities are confounded with those of the *Semi-orbicularis superior*.

The *Buccinatores* are two in Number, each of them situated transversely between the posterior Part of the two Jaws, and the Corner of the Mouth: They are broad backward, and narrower forward, in the Shape of a Triangle, or Trapezium; and they form a considerable Portion of the Cheeks. To have a just Idea of these Muscles, we must be made acquainted with a Ligament on each Side of the Face, which I call the *Ligamentum inter-maxillare*; because it connects the two Jaws, and, also, gives Insertion to the posterior Fibres of the *Buccinator*.

This Ligament is strong, and pretty broad: It is fixed by one End to the Outside of the upper Jaw, above the last Dens Molaris, and at the Side of the Apophysis Pterygoidea, where it adheres very closely to the Musculus Pterygoideus internus. By the other End it is fixed in the posterior or superior Extremity of the oblique prominent Line, on the Outside of the lower Jaw, below the last Dens Molaris: It serves, likewise, as a Frænum, to check and limit the Depression of the lower Jaw, in opening the Mouth; and we may feel it ourselves, with the End of the Finger in the Mouth, especially when it is wide open.

The *Buccinator* is inserted posteriorly in three different Places: The middle Fibres are fixed transversely in the Ligamentum Intermaxillare, and run directly to the Corner of the Mouth: The superior Fibres run down in an oblique graduated manner, from the Alveoli of the upper Jaw to the Corner of the Mouth; and the inferior Fibres run up from the lower Jaw in the same manner. All these Fibres contract, by degrees, as they approach the Commissure of the Lips, where they run in behind the Extremities, and Union of the *Semi-orbicularis*, by which they are covered, and to which they adhere closely. There is a large Hollow between this Muscle and the Masseter, filled with Fat.

The

The *Zygomatici Majores* are two Muscles situated, one on each Side, between the Zygoma, and the Corner of the Mouth: Each Muscle is thin, long, oblique, and fixed by one Extremity to the lower Edge of that Portion of the Os Maxæ, which is connected with the Zygomatic Apophysis of the Os Temporis: From thence it runs down obliquely, from behind forward; being, in its Passage, commonly involved in Fat: It ends at the Commissure of the two Lips, adhering strongly to the Buccinator which covers it. This Muscle is very often complex.

The *Zygomatici Minores* are two small slender Muscles, lying above the great Zygomatici, and almost parallel to them: Their superior Extremity seems to be a Detachment from the lower Fibres of the Orbicularis Palpebrarum; but they may be always distinguish'd: Their lower Extremity unites with the neighbouring Incisarius. These Muscles are quite buried in Fat, and, for that Reason, often disappear.

Each of the two *Canini* is fixed by a broad Insertion in the upper Jaw, above the Socket of the Dens Caninus, in a Depression, below the inferior Edge of the Orbit, near the Os Maxæ; from thence it runs down obliquely, crossing the lower Extremity of the Zygomaticus Major, which covers it at this Place; afterwards it terminates at the Extremity of the Arch of the Semi-orbicularis superior, and communicates, by some Fibres, with the Triangularis. I formerly looked upon this as a neutral Muscle, that is, as being neither a proper Muscle of the upper Lip, nor common to both.

Each of the two Incisarii Laterales is a sort of Biceps, its upper Part being divided into two Portions, which unite below. One of these superior Portions is larger than the other, and is fix'd in the Os Maxillare, below the middle Tendon of the Orbicularis Palpebrarum, seeming to communicate by some Fibres with the contiguous Fibres of that Muscle. From thence it runs down a little obliquely toward the Cheek, along the Apophysis Nasalis, mixing with the Pyramicalis Nali, and sending some Fibres to the Nares. Afterwards it passes over, and adheres to the Myrtiformis, or Transversales Nali, and unites with the other Portion.

This other Portion is fixed by a broad Insertion, immediately below the Edge of the Orbit, in the Os Maxillare, near the Union of this Bone with the Os Maxæ; and, likewise, a little in the last-named Bone, being at this Place covered by the inferior Portion of the Orbicularis Palpebrarum, with which it has sometimes a kind of Communication. From thence it runs down obliquely towards the Nose, and unites with the first Portion.

The two Portions, thus united, and contracting in Breadth, run behind the Semi-orbicularis superior, and are fixed in it opposite to the lateral Dens Incisarius. Sometimes it sends a small Fasciculus of Fibres to the Musculus Caninus, which may be reckoned an Assistant to that Muscle, and named Caninus minor.

The Incisarii Medii are commonly call'd Incisarii minores Cowperi, or Incisarii minores superiores. They are two small short Muscles situated near each other, below the Septum Narium. They are fixed by one Extremity in the Os Maxillare, on the Alveoli of the first Incisores, behind the Semi-orbicularis superior, and by their other Extremity in the middle and superior Part of the Substance of the upper Lip, near the Nares, in which they likewise have an Insertion; and they sometimes send lateral Fibres to the Semi-orbicularis.

Each of the two Triangulares is fixed by a broad Extremity in the Outside of the Basis of the lower Jaw, from the Masseter to the Hole near the Chin. From thence it ascends, contracting in Breadth in a bent triangular Form, runs in between the Extremities of the Buccinator and Zygomaticus major, to both which it adheres very closely, and terminates at the Commissure of the Lip, partly in the Semi-orbicularis superior, and partly, though not always equally, in the Semi-orbicularis inferior. This Muscle seems sometimes to be a Continuation of the Caninus major.

The Quadratus forms the thick Part of the Chin below the under Lip. It is a very complex Muscle, and very difficult to be prepared, because its Fibres are interwoven with a great Quantity of Fat, or a pellicular Texture of the Membrana Adiposa. It is first inserted in the fore Side of the lower Jaw, where it partly fills the broad Fossula on each Side of the Symphysis. Thence it runs up, intersecting, along the Symphysis, the contiguous Fibres of the Skin, and terminates by a broad Insertion in the Semi-orbicularis inferior. The Direction of the other Fibres, of which it is composed, varies in different Subjects, and it communicates by some Fibres with the Cutanei.

The Incisarii inferiores are two small Muscles, commonly mentioned with the Addition of M. Cowper's Name. Each of them is fixed by the superior Extremity, on the Alveoli of the lateral Incisores of the lower Jaw. Thence they run down, approaching each other, and are inserted together in the lower Part of the Middle of the Semi-orbicularis inferior.

On the Outside of the superior Insertion of each of these Muscles, we meet with a Fasciculus of Fibres, which seem to be detached from it near the Incisors. This Fasciculus goes off laterally in form of an Arch, and unites with the Fibres of the Semi-orbicularis inferior, with which it may be easily confounded. It may be looked upon as a Musculus accessorius to the Semi-orbicularis inferior, or as a Collateralis to the Incisarius minor.

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The two Musculi Cutanei form a kind of fleshy Membrane, which covers the whole fore Side of the Throat and Neck, from the Cheek and Chin, all the Way down below the Clavicula, and adheres very strongly to the membranous or aponeurotic Expansion. This Expansion has a particular Adhesion to the anterior Portion of the Basis of the lower Jaw, of the same Kind with that at the lower Part of the Zygoma; and it is spread over all the Muscles that lie round the Neck, and over the upper Portion of the Pectorales majores, Deltoides, and Trapezii.

The Fibres of each cutaneous Muscle run obliquely upward and forward, and seem to intersect those of the other Muscle at acute Angles, from the Sternum all the Way to the Chin. They adhere very closely to the Skin, by the Intervention of the cellular Substance. From the Clavicles, to the upper Part of the Neck, these Muscles are very thin, and from thence increase a little in Thickness, as they approach the Basis of the lower Jaw, and especially from the Masseter to the Chin.

They adhere strongly to the lower Portion of the Masseter, Triangularis, and Quadratus, and on the Masseter and Buccinator, their fleshy Fibres become aponeurotic, but continue longer on the Triangularis, being mixed with the Fibres of that Muscle all the Way to the Commissure of the Lips. They likewise advance a little on the neighbouring Portion of the Quadratus.

The Portion of these Muscles, which answers to the Basis of the Triangularis, is in a manner divided into two fleshy Laminae, the outermost of which is what advances over the Triangularis and Quadratus, the other being inserted separately in the lower Jaw. I have sometimes observed a Part of the fleshy Extremity of the Right Side to pass before the Symphysis of the Chin over a like Part from the Left Side, the one covering the other.

The common Muscles of the Lips either draw both Corners of the Mouth at once, or only one at a time, according to the different Direction of their Fibres. The proper Muscles pull the different Parts of the Lips, in which they are inserted. The Buccinators, in particular, may serve to move the Food in Mastication. An entire Treatise might be written on the almost innumerable Combinations of the different Motions of all these Muscles, according to the different Passions and Postures in which a Man may put his Face. None are more affecting, than those produced by the Cutanei alone, especially in Weeping, which they do by their Adhesions to the Triangulares, &c. But, by their Insertions in the Bone of the lower Jaw, they draw up the lower Part of the Integuments of the Neck, and those of the Breast next to these; for they cannot move the Jaw. In old People, and in those who are much emaciated, these Muscles may be perceived by the Eye, under the Chin, and on the Neck.

LABIA LEPORINA. Hare-Lips.

In some Persons, the upper Lip is so divided or slit, as to resemble the upper Lip of a Hare (see Tab. XLI. Fig. 1.); whence it is called a Hare-Lip. This Division is sometimes small, and sometimes so large, that a Part seems wanting; at other times it is double, like the Letter M, and then is termed the double Hare-Lip. Besides the Deformity caused by this Disorder, it is attended with an Inconvenience, which hinders Infants from sucking, and Adults from speaking distinctly. Sometimes this Accident happens to the lower Lip, from the ill Treatment of a Wound, and this we call the spurious Hare-Lip. In the true Species, which is born with the Infant, the Palate is often divided either in Part, or entirely to the Nose and Uvula; and sometimes I have observed the Uvula wanting. It is no Wonder, therefore, if, after a complete Cure of the external Disorder, the internal remains incurable, and renders the Speech ungrateful and difficult, on account of the Fissure of the Palate and Nose. The less and more equal the external Fissure, the easier the Cure; and the more difficult, when it is larger, and more unequal. Sometimes the Lip is so mutilated as to admit of no Cure, particularly in Infants, though, in some more advanced Years, it may be attempted with greater Hopes of Success. So the double Hare-Lip is often difficult to be remedied from the Largeness of the Hiatus, or some other Cause. Sometimes Part of the Jaw, or a Tooth, projects forwards into the Slit; and, unless these are removed, the Cure can never be perfected.

When the Hare-Lip is recent, or proceeds from a Wound, it is cured by the knotted Suture; but, when a Part is lost, the Needles must be used, as in the true Kind: In this, as Art cannot supply what is naturally deficient, it can only unite what is divided; and this is done by cutting and taking off the Edges of the Wound, with great Circumspection. We shall therefore give a succinct, but very plain Account of the Method. A temperate Season, as Spring, Summer, or Autumn, but particularly the first, is to be chosen for this Operation; the Patient should be free from any other Disease, vigorous, and in good Health; but, if he has any Disorder, let that be first removed. Next, he should be prepared by lenient Purges, with a continued Regularity of Diet. The Operation is to be performed in a light Room, and requires the subsequent Apparatus; a Pair of Scissors, (Tab. XXII. Lett. C.) some Needles (Tab. XXV. Fig. 21. and 22. or Tab. XLI. Fig. 2, 3, 4, 5.) made of the softest Sort of Gold, of Silver, or Brass, with sharp triangular Points, (Fig. 2.) or flat, (Fig.

(Fig. 3, 4, 5.) that they may more easily enter the Lip. Steel Needles are not so commodious, because they are subject to Rust; and hence, in extracting, excite Pains, and cause Lacerations. Besides these, let there be provided some strong Silk Threads, a Vessel full of warm Water, with a Sponge, Lint, vulnerary Balsam, and a long, narrow Fillet; and, if sharp Needles are to be left in the Wound, or the Jaw or a Tooth projects into the Division, a Forceps proper for the Removal of them will be convenient. Lastly, Some *Hungary Water*, or something of the like kind, to revive the Patient, by applying it to his Nose. When the Operator is provided with these Necessaries, he must seat his Patient, if he is an Adult, against the Light, and secure his Head by an Assistant: If he is an Infant, which is generally the Case, he must be laid in a strong Man's Lap, and his Head and Legs must be held fast by two Assistants, while the Person, whose Lap he is in, secures his Hands; or, if he be very young, they may be tied with a strong Roller. When the Fissure is large, and the two Parts cannot be easily united, it is proper to divide the *Frenulum* of the upper Lip from the Gums, with a Pair of Scissars, but without wounding the Gums, or uncovering the Jaw; then the Surgeon cuts off the Edges of the Fissure with his Scissars, that they may be every-where bloody, and particularly in the upper Part, which sometimes requires a peculiar Incision; but he carefully avoids taking off too much, or too little; for both Extremes will prevent an Union. He next cleanses the Lips with a Sponge, and an Assistant holds them close together, whilst the Operator passes thro' them two or three Needles, according to the Size of the Wound, and Age of the Patient, at about the Distance of the Breadth of a Goose-quill from the Fissure; for, if they were nearer, they would tear out, especially in Infants, who are very subject to cry. The Needles are to be entered from the Left towards the Right, beginning at the superior Angle of the Fissure, and inserting them at about a Straw's Breadth from each other; for this will produce an Agglutination. In performing this Operation upon Adults, an Acutenaculum or Handle (Tab. 27. fig. 2. or 3.) may be found convenient to sustain and depress the Needles, tho' it may be done by the Fingers, which is my constant Practice.

When the Needles are thus passed, and the Lips again cleansed with a Sponge, let an Assistant hold them close together, whilst the Operator fastens a Piece of strong waxed Thread or Silk about one End of the Needle, and proceeds with it either like the Figure 8, laid sideways, thus ∞, (as Tab. 25. fig. 21, 22.) or circularly, (as Tab. 41. fig. 5.) beginning either at the upper or lower Part; and, having, by this means, drawn the Margins of the Lips together, he fastens the Thread with a Knot. It is customary to cut off the Points of the Needles with a strong Pair of Forceps, that they may not project above the Breadth of a Goose-quill beyond the Ligature, that they may not prick the Lip, and excite Pain and Inflammation; but, when the Needles are short, or secured with Linen or Sponge laid under them, this is not necessary; on the contrary, the Cure succeeds better without it, there being then no Danger of an Irritation of the Wound.

It is the Practice to dress with soft Lint, dipt in Honey of Roses, which is applied between the Gums and Lip, to heal the Wound internally: This, indeed, may be done to Adults; but many Inconveniencies attend it, if the Patient is an Infant; for they, by crying, will easily divide the Wound, besides the Danger of coughing, or being suffocated, if the Lint should slip down. The external Part of the Wound is dressed with Balsam of *Peru*, or some other vulnerary Balsam, covered with Lint, and a Compress; adding, if it is thought proper, a sticking Plaster, with four Heads, cut in the Form of a Roller, represented Tab. 23. d, two of which are fastened on the Right Side of the Lip, and two on the Left, the Whole being secured with a four-headed Bandage, an Inch broad, or a simple two-headed one, whose Ends may be fastened about the Occiput, either by a Knot, or Pins. Some, when the Fissure is very large, apply a narrow uniting Bandage (see Tab. 23. fig. f) over the Plaster; but this does more Prejudice than Service, by pressing the Needles too forcibly; and as the only thing requisite to keep the Dressings on the Wound, the first-mentioned Bandage is to be preferred. And, in Infants, if I am not mistaken, the sticking Plaster is very inconvenient; for, during the whole Application of it, they will cry, and, by that means, injure the Lip, but just sown up. *Garengot* advises Bleeding two or three times after the Operation: But this is superfluous, and I have cured many without it.

The Antients thought it unsafe to attempt this Cure upon Infants under two Years of Age; and *Garengot* would defer it till they are four or five; but Experience teaches us, that many have been freed from this Disorder at five or six, and even at three Months old, when they were well in other respects, and the Operation was rightly performed. Besides, Parents are unwilling to defer it so long; and, therefore, when the Fissure is but small, there is no necessity for the least Delay. Before this Operation, Infants should be kept awake a considerable time; and an Anodyne may be given them, that they may sleep the longer afterwards, and not divide the Lip by crying, but rather let the

Wound heal. Further, the Infant, during the Operation, should have his Head rather bent forwards than backwards, to prevent coughing, or the Blood from running down his Throat. And though this is generally attended with a profuse Hæmorrhage, there is no Danger; for that prevents an Inflammation, and it ceases upon the Application of the Suture and Bandage before recommended.

Some Surgeons, for Prevention of the Hæmorrhage, and Convenience of the Operation, provide certain Tenacula, contriv'd on purpose, represented Tab. 41. fig. 6, 7. to hold the Lip on each Side of the Fissure, before they remove the Skin with the Incision-knife, or Scissars, which, tho' they seem very properly adapted to make a neater Wound and Cicatrix, are very seldom used. In Infants, as well as Adults, when there is a Fissure in the Palate, Part of the upper Jaw, or a Tooth, generally projects forwards, which must, therefore, be removed, or extracted, before the Operation is begun.

The Dressings ought not to be removed before the third Day, unless some Accident renders it necessary, and then with Caution, that the Parts may not be separated; to prevent which, it may be proper to moisten the Bandage and Plaster with warm Wine; and, if the Thread is relaxed, so as not to retain the Lips of the Wound, a new Thread must be fastened round the Needles, and the Wound bound tighter. This seldom happens. But, when every thing appears in due Order, the Surgeon ought to anoint the Wound with a Feather, dipt in a vulnerary Balsam, lay fresh Lint between the Gums and Lip of an Adult, and proceed as we directed before. If the Lips of the Wound appear conjoined in three or four Days, he may take out the middle Needle, if there are three, or the upper one, if there are but two, with his Fingers, or a Forceps; but this must be done very cautiously, first applying his Fingers on each Side, to compress the Edges of the Wound. The Wound may be thus opened every Day, or every other Day, by which means the Threads will separate spontaneously, and the Cure be perfected by dressing with a vulnerary Balsam, or Honey of Roses, or Syrup of Violets, with a sticking Plaster, and uniting Bandage. Lastly, it will contribute greatly to the Cure, if the Patient, being an Adult, is, for some time, diered upon Broths, Emulsions, Milk, Jellies, and Food, which requires no Mastication; and is forbid talking. In Infants, the lower Part of the Lip should be often moisten'd with a Feather, dipt in Honey of Roses, or Syrup of Violets, which will not only heal, but excite the Child to lick that Part, and, by that means, promote the Cure.

Many *German Quacks* and Mountebanks pass a strong Thread, with a common Needle, thro' the Lips, at the Distance observed by regular Surgeons, and then tie the Ends of the Thread, as in the knotted Suture. They observe the same Order in tying the Threads, as others in making the Ligature about the Needles; nor do they vary in their other Dressings, and the Remainder of the Cure. At last they cut the middle Thread on the third or fourth Day, the uppermost on the fifth, and the lowest on the sixth or seventh, and sometimes all of them on the fourth or fifth Day; and thus they frequently succeed, tho' in an awkward Manner, and with very indifferent Instruments, when the Fissure is small; for, when it is large, this Method can never be effectual.

We shall now subjoin some necessary Cautions and Observations relating to this Disorder. First, When the Skin, in the upper Angle of the Fissure, is not taken clean off, that Part will not unite, tho' the lower may; but there will remain an *Hiatus*, to avoid which, none of the Skin should be left behind. Secondly, If, thro' Neglect, such an Aperture is left above, and the inferior Parts are healed, the only Method is to take off the whole Cicatrix by a double Incision, and close the Wound afterwards with Needles and Ligature: In this Manner I cured two Girls of such a Foramen, which had been left by Mountebanks. Thirdly, When the Palate is divided, and the Hiatus of the Lip extends to the Nose, as is represented in Tab. 41. fig. 1. A, the before-mentioned Cautions are superfluous, because the Angle is wanting in the upper Part, though a modern Writer has insisted on them without Distinction; which proves that he either never met with this Sort, or did not understand it. Fourthly, In a double Hare-Lip, the four Sides of the Fissure must be cut off, and then united by long Needles, and a Ligature, beginning on the Left Side, then proceeding to the middle, and from thence to the Right Side. *Roombuyssen, Paisin*, and others, advise to loosen the Threads on the second or third Day, and propose many Advantages from it: But, as the Threads actually adhere to each other, and the Wound or Needles, by means of the Blood or Balsam, without any Pain or Injury, and this Removal would make Infants cry, I cannot see any Reason for such a Procedure; unless an Inflammation, or some other Accident, require it, especially as they will separate after extracting the Needles. Sixthly, I use a kind of Ribband or Fillet, with two or three Hooks, like those represented Tab. 25. fig. 9. which I fix to the Patient's Head, in such a manner, that the Angles may be placed on each Cheek, near the Lips. Next, having encompassed the Needles with the Thread, I fasten a strong Lace to one of the Hooks, which I pass to one of the Hooks on the other Side over the Needles, and

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so back again, till the whole Lace is taken up, to the other Hooks, which is the best Method of securing the Lips of the Wound. Seventhly, Some direct to extend and support the Left Side with the Left Hand, and take off the Skin by Scissars, with the Right; then, changing Hands, the Right Side is to be supported by the Right Hand, and the Left to perform the Operation; but as this will render the lower Part of the Lip more tense than the superior, however cautiously it be done, hence, in the Section, more will be taken from the inferior than the superior Part, and, in consequence of this, the Wound will be too large and unequal; which Inconvenience is still greater in Children, from the Smallness of their Lips, to say nothing of the changing Hands, and making an Incision with the Left; I think it, therefore, better not to touch the Lip with the Fingers, during the Section, but only to take the Margin with the Scissars. Eighthly, *Petit* has invented, for this Purpose, a Needle, almost like the Larding-pin, (see *Tab. XLI. Fig. 8.*) by whose obtuse End A, which is hollow and slit, when he has passed it through the Lips of the Wound, he introduces the *Fibula* (*Fig. 9.*) made of Silver, with two Heads; and after extracting the Needle, leaves it in the Wound: Then he involves the Thread round the *Fibula*, to unite the Wound, and this indeed seems a very proper Method. But, if I was to use these *Fibulae*, they should be made of Silver, either without a Head, or with one only (as *Fig. 10.*); for then the Head need not be cut off, and they might then be extracted with much more Ease. Besides, I think this Needle too thick and large, and would prefer that (*Tab. XL. Fig. 8.*) which I recommended for perforating the Ear. Ninthly, If this Operation should be attended with an Inflammation, Fever, or Convulsions, which never occur'd to me, I agree with *Garengot*, in removing the Suture. Tenthly, If a large Part of the Lip, or any Teeth, are wanting in Adults, so that the *Fibulae* cannot be supported, a Leaden Plate should be fixed under the Lip. Lastly, It is surprising, that *Hildanus*, out of 600 chirurgical Observations, should have nothing upon the Hare-Lip. *Heister. Chirurg.*

Sharp says, that the callous Edges of the Fissure must be cut with a thin Pair of strait Scissars, the whole Length of it, observing the Rule of making the new Wound in strait Lines, because the Sides of it can never be made to correspond without this Caution. For instance, if one Side of the Hare-Lip was indented, the Incision of the Edges must be continued in direct Lines.

The Pins I employ, says he, are made three-fourths of their Lengths of Silver, and the other Part, towards the Point, of Steel; the Silver Pin is not quite so offensive to a Wound, as a Brass or Steel one; but a Steel Point is necessary for its easier Perforation, which makes them pass so readily, that there is no need of any Instrument to assist in pushing them through. *Sharp.*

Besides the preceding Signification of *Labia*, the Edges, or Lips, of Wounds or Ulcers are thus called. And there is another Part of the Body, which has acquir'd this Appellation, which is the most external Part of the *Pudendum Muliebre*.

The *LABIA PUDENDORUM* are more prominent and thicker above than below, which lie nearer each other below than above. They are principally composed of the Skin, cellular Substance and Fat. The exterior Skin is a Continuation of that of the *Pubes* and *Inguina*. It is more or less even, and furnished with a greater Number of glandular Corpuscles, from which a whitish ceruminous Matter may be expressed; and after a certain Age it is likewise covered in the same manner with the *Pubes*.

The inner Sides of the *Labia* are something like the red Portion of the Lips of the Mouth; and it is distinguished everywhere, from the external Side, by a kind of Line, in the same manner as the red Portion of the Lips from the rest of the Skin; being likewise thinner and smoother than the outward Skin. A great Number of Pores are observable in it, and, also, numerous glandular Corpuscles, which furnish a Liquor more or less sebaceous; and the Corpuscles are larger near the Edges, than in the other Parts. The Places where the *Labia* are joined above and below, are termed Commissures; and may likewise be called the Extremities or Angles of the Sinus. *Winflow.*

LABIATE FLOWERS are such as have Lips; or, more properly, a labiated Flower is an irregular monopetalous Flower, divided into two Lips; the upper is called the Crest, the under the Beard. Sometimes the Crest is wanting, and then the Style and Chives supply its Place; as in the Ground-pine, *Scordium*, *Buzula*, and the like; but the greatest Part have two Lips: In some Species the upper Lip is turned upwards, as in Ground-ivy; but most usually the upper Lip is convex above, and turns the hollow Part down to the lower Lip, and so represents a kind of Helmet, or Monk's Hood, from whence these are call'd Galeate, Cucullate, and Galericate Flowers, in which Form are most of the verticillate Plants. *Miller's Dict.*

LABIS, λαβίς, from λαμβάνω, to take. A Forceps.

LABLAB. A Name for the *Phaseolus*; *Ægyptiacus*; *nigro Semine*.

LABOR Imports either Labour, considered as an Exercise of the Body, or a Disease.

LABORATORIUM. A Laboratory.

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LABRAX, λαβραξ. The Name of a Fish. See *LUPUS*.

LABRISULCIUM. A Chap in the Lip; or the same as *CHEILOCACE*. This is a scrophulous Symptom. See *SCROPHULA*.

The *Labrisulcium*, or chapt upper Lip, as it is an Attendant on the Strumæ, is best cured by the same internal Remedies usually prescribed to alter and rectify this particular Dyscrasy of the Blood, and its secreted Juices, which, together with mercurial Purgation, oftentimes takes down the Swelling, at least for a time, till by getting of a fresh Cold, or some other Trespass in the Non-naturals, a new Fluxion arises, and the Part swells up again.

The Chap, or Cleft, itself, may be anointed with Oil of Almonds, Sperma-ceti, Ointment of Turty, or *Turner's* Cerate of *Lapis Calaminaris*. Dr. *Bate* has two Remedies, in his Dispensatory, the one he calls his *Unguentum ad Fissuras*, the other *Oleum Tritici*, being an Oil, strongly expressed from Wheat bruised, and put between hot iron Plates; which, however they may happen to succeed in common Chaps or Clefts in the Skin, from the cold Air, to which many People are subject, yet I must suspect their Efficacy in our present Case.

Arnoldus Boet has treated of this Symptom more particularly in his tenth Chapter, under the Title of *Cheilocace*; where, in the first Place, he tells you, that, as Children are the usual Subjects of this Disease, it is necessary the Remedies should be made as palatable as can be. He begins the Cure, therefore, with an opening Apozem of the Decoction of Fumitory, Betony-root, Dock, Succory, and Polypody, rendering the same purgative with Sena, Agaric, and Tamarinds, of which the Patient is to take a Draught two or three times in a Day, rendered pleasant with a little Syrup of Violets, or Succory: Having made a general Evacuation by the Lancet, he bleeds with Leeches behind the Ears, by way of Revulsion, and directs, also, Fontanels, or Issues.

His Topics for the Lip are Epithems, by way of Fetus, prepared of a Decoction of Chervil, Cinqufoil, Myrrhis, red Roses, and Sage, in which a little Salt of Vitriol, or white Vitriol, depurated by repeated Solutions and Coagulations, has been dissolved, whilst the Chap or Cleft on the Inside is touch'd frequently with a Mixture of Plantain-water, Sugar of Lead, and Honey of Roses. *Turner's Surgery.*

The *Unguentum ad Fissuras* of *Bates* is made of Myrrh, and Litharge of Silver, each one Ounce; Honey, four Ounces; Wax, two Ounces; Oil of Roses, six Ounces; *Oleum Rhodii*, twelve Drops.

Or, Take of *Armenian* Bole, Myrrh, and Cerufs, each two Drams; and make into an Ointment, with Duck's Fat.

LABRUM. A Lip. See *LABIA*.

LABRUM VENERIS. A Name for the *Dipsacus Sylvestris*, or *Virga Pastoris major*.

LABRUSCA. A Name for the *Vitis Sylvestris*.

LABURNUM. A Name for the *Cytisus Alpinus*; *latifolius*; *flore ratemosa*, *pendulo*.

LABYRINTHUS. The Labyrinth of the Ear. See *AURIS*.

LAC. Milk.

Milk is a Liquor prepared from the Aliment chewed in the Mouth, digested in the Stomach, perfected by the Force and Juices of the Intestines, and elaborated by means of the Mesentery, and its Glands, and Juices, and the Juices of the thoracic Duct: It has undergone some Actions of the Veins, Arteries, Heart, Lungs and Juices, and began to be assimilated; yet may still be had separate, and discharged out of the Body.

And thus by their own Milk, prepared from the proper Matter of the Chyle, all the known lactiferous Animals are nourished, both Male and Female: For Milk is always prepared from the Chyle, as well in Men as in Women, in Virgins, and barren Women, in Mothers, and Nurses. Whence every such Animal consists, is nourished, and lives, on its own proper Milk; and from this alone prepares all the other Parts, both the solid and fluid, by means of the vital Actions. It is, also, certain, that Men may live for Years, by feeding upon Milk alone, and perform all the Actions of Life, and have all the solid and fluid Parts of their Bodies perfectly elaborated. The Serum, therefore, the Blood, the Lymph, the Spirits, Bones, Cartilages, Membranes, and Vessels, proceed from Milk; and if a Man may live, for many Years, upon Milk alone, Milk must contain in itself the Matter of all the Parts of the human Body. Milk approaches nearer to an animal Nature than Chyle; the Chyle of the Intestines is nearer to a vegetable Nature, and that of the Stomach nearest. And hence we find the Phenomena of Fermentation and Putrefaction in the Stomach and Intestines; such as acid Eructations, fetid Smells, and the like; for this Chyle is a true Emulsion, prepared by the grinding of the Teeth, the Tongue, the Stomach, and the Intestines, along with the Saliva, the Liquor of the Stomach, the pancreatic Juice and Bile, in the Intestines; and hence proceeds Milk.

If this Milk be good, and suffered to rest in a clean Vessel, it first appears uniformly white, then throws up a white, thick, unctuous Cream to its Surface, and remains somewhat bluish below. If the Cream be carefully taken off, the remaining Milk produces

produces more. The same thing happens in Emulsions. The Milks of all the known Animals have this Property alike, as likewise the Property of Whiteness. The human Milk is very sweet and thin, the next is that of Asses, then that of Mares, then of Goats; and, lastly, of Cows. Whence it is prescribed, in this Order, to consumptive Persons of weak Viscera. But though Milk resembles vegetable Emulsions in several respects, yet they differ in others. The Rennet, prepared of the Juice in the Stomach of such Creatures as chew the Cud, being mixed with Milk, coagulates into an uniform Mass, which may be cut with a Knife, and it thus spontaneously separates into Whey and Curd; but this does not happen in Emulsions. If long boiled over the Fire, it loses its more fluid Parts, and condenses into a butyraceous and cheesy Mass; but not into an uniform one, that will cut like the dried Serum of the Blood, or White of Egg. It has a pleasant Taste, and no unpleasant Smell; it is extremely mild, and of a middle Nature between the Blood and the Chyle; and hence proves different according to the Aliment, and the Creature that prepares it.

Neither the Smell, nor Taste, nor the dropping of new Milk into the Eye, manifests any acid, alkaline, or saline Matter to be contained in it. If Milk be heated, and successively mixed with pure, volatile, and fixed Alkali, there arises no Effervescence which shews any Acidity; but the Milk grows somewhat thick and turbid. To other Parcels of the same Milk add the acid Spirit of Vinegar, of Nitre, of Salt, and of Vitriol; and these make no Effervescence, so as to manifest the Milk to be alkaline, but thicken and coagulate it. But, upon mixing Milk, to which Oil of Tartar *per Deliquium* was poured, with some Oil of Vitriol, there immediately arises a violent Effervescence, and much greater than if the same Quantity of Alkali was added to pure Oil of Vitriol. If new Milk be digested in a Glass Alembic, with a Fire about 160 Degrees, there comes over an aqueous Liquor, without any Signs of an inflammable Spirit; nor does this Liquor give any chymical Sign of being either acid or alkaline, upon mixing with either acid or alkaline Salts. It, also, appears not to contain any saline Matter, being inodorous, and perfectly insipid, and causing no Pain, if dropt into the Eye. There remains behind a yellow, thick, unctuous Mass of a sweet and grateful Taste, which Mass gives not the least Appearance of containing any thing acid, alkaline, or saline, upon all the Trials made to discover it.

R E M A R K S.

This is the true Nature of Milk, thus variously examined: Whence we here find no Signs of a perfect Fermentation, either of the acerous, or vinous Kind; nor of Putrefaction, which produces an alkaline Salt, or fetid Oil; and this though a great Quantity of animal Juices be mixed with the vegetable Matter of the Milk: Whence we must form a very different Notion of the Action performed in the making of Chyle and Milk, than Chymists usually suppose and deliver. And, as Cattle are milked twice a Day, this whole Operation must be performed in the Body in the Space of twelve Hours; and, if detained longer, it begins to degenerate, and to corrupt. This Experiment was made upon Cows Milk, because they feed wholly upon Grass, Hay, and Water. There is sometimes a Difference found in Womens Milk from the Difference of the Aliment; but, when fresh, there is little Difference to be observed. Some have supposed, that there was here a latent Acid, though it did not appear upon the preceding Experiment; but, if Acids are denominated with respect to our Senses, or their sensible Effects, there is no Acid contained in the recent Milk.

Let new Milk boil in several different Vessels, with the Addition of a little Water, to prevent its growing too thick in the boiling; pour into one of them a little Vinegar, and one Part of the Milk will presently coagulate, and leave the other fluid. Into a second pour the Spirit of Nitre; to a third, Spirit of Salt; and to a fourth, the Oil of Vitriol, and the same Effect immediately ensues; nor can this Coagulation be prevented by a Heat of 212 Degrees. The same Coagulation is made with any other Acid, as the Juice of Sorrel, Barberries, Citron, Currants, Verjuice, Tamarinds, and Tartar; so that the Thing which of itself was so liquid as to pass through the finest Arteries, now has one Part separated into a gross curdy Matter, and another into a much thinner than the Milk itself, called *Whey*. If the Curd be strongly pressed betwixt thick Linen, it makes Cheese, which consists of the Cream of the Milk, and the Curd. This Cheese, with Age, becomes sharp and acrid, not acid, but rather somewhat alkaline, of a particular Smell, and so penetrating a Taste, as often to inflame the Mouth. But when the Milk is first deprived of its Cream, and afterwards coagulated with Acids, or with Rennet, the Cheese thence made proves very dry, and hard like a Horn; and, when applied to the Fire, grows tough, scorches, fries, burns, and smells perfectly like

Horn. This is a strange Change of so fluid a Matter as Milk; but is, perhaps, the Origin of all the Solids in the Body.

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The Nature of Milk, thus discovered, is the same in the Receptacles of the Breasts, where it is lodged; and, therefore, may be there coagulated by a like saline or acid Matter; at which time the thin Serum comes out at the Nipple, and the thick Curd remains in the Vessels, so as there to produce Hardness, Swellings, Inflammations, Suppurations, Scirrhusities, and Cancers; and, perhaps, the same may happen in the chylous Glands of the Mesentery. But, in all these Coagulations with Acids, the Milk retains its white Colour; and hence appears the Reason why weak Bodies generate a white Chyle and Milk, but with Difficulty convert it into a red Blood; whence such Constitutions as abound with Acid, are troubled with acid Corruptions, their Sweat and Smell being also acid, and the whole Body pale: Which Particulars, being considered, may lead Physicians into a due understanding of many Diseases.

Dilute new Cows Milk with a little Water, and boil it in a clean Vessel, and, by degrees, drop Oil of Tartar *per Deliquium* into it: It will thus begin to turn yellow; the more so, as more Alkali is added, and the Boiling the longer continued, so as to pass from a faint yellow into a red Colour. At the same time it coagulates more and more, and separates into curdy Masses, though not so large and firm, nor so easily hardening, as those produced by Acids. At length, by boiling the Whole long enough, it become a thick, red, coagulated Mass.

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Milk, therefore, which, mixed with Acid, or its own Rennet, retains its white Colour, even in the Heat, immediately turns yellow with Alkalies in a strong Heat, and, if the Heat be sufficiently intense, almost red. When a Woman, that gives Suck, becomes highly feverish, the Milk in the Breasts is corrupted, and, in this Case, it becomes yellow, saline, thin, and sanious; the coagulated thick Part, remaining in the Breast, now grows somewhat fetid, and is abhorred and loathed by the Child. When, therefore, the Milk coagulates in the Body, and grows yellow under a Fever, the Physician must not suppose it coagulated by an Acid, but by too much Heat, and rather by an alkaline Tendency: And, perhaps, Physicians find the Milk thus coagulated by a Fever an hundred times for once that it is coagulated by an Acid. And in the last Contagion among the Cows, while their Meat remain'd in the Stomach, and was neither discharged upwards by ruminating, nor expelled downwards, and therefore truly putrefied by the violent Degree of Heat, so that the Stomach was almost scorched, then the Milk grew sharp, yellow, somewhat fetid, and thin in the Dug; and in this Form was either milked out, or dropt spontaneously. Thus, if, when Milk is coagulated, either by chymical Acids, or by Rennet, and heated, and an Alkali be put to it, we shall find this Assertion false, that Alkalies dissolve the Coagulation, and recover the former Fluidity. And hence we may understand, how Milk will long remain white in the weakest and coldest Constitutions, and not be brought to the natural Redness of Blood. Such Persons are, therefore, continually pale, and their Blood thin, pale, and watry; but, upon the Removal of the Disorder, the Whiteness vanishes, and the red Colour returns. So, when the vital Faculties are but moderately strong, they are only able to convert some Part of the Milk into Blood, but not to perfect the Whole; then there arises a somewhat pale yellowish, or greenish Colour, whence the Green-sickness in Virgins. But where the vital Faculties are robust and strong, so that they briskly circulate, and heat the Milk, the white Colour is soon subdued, and converted into a florid Red; whence the Blood will be often so intensely red, as to appear almost black. Lastly, it is manifest, that the white Colour of the Milk may remain in the Body, that abounds with Acids; but, if Alkalies preside in it, it will gradually acquire, first, the Colour of Bile, afterwards grow more intensely yellow, and tend to Redness. Dr. Lower has shewn, that the white Colour disappears twelve Hours after feeding. *Boerhaave's Chymistry*.

The medicinal Virtues of Milk, and the Manner of using it, is specified under the Article *FIBRA*.

A MILK-DIET.

I have given, says Dr. Cheyne, the Preference in a low Diet, both from Observation and Experience, to Milks; such as Asses, Mares, Cows, Goats, and Womens; all of them excellent in their Kind, and preferable in this Order: Milk is a Medium between

tween young animal Food and mere Vegetables: Milk is white Blood already made, adjusted to all the Meanders of Circulation, and prepar'd by the Hand of Nature, and intended and signatur'd by its Author, for the curing, nourishing, and fortifying of weak, tender, and diseased Animals. Asses-milk needs no Concomitant but in extremely bilious Stomachs; and I question whether testaceous Powders, joined with it, do not hurt instead of benefiting the Patient; if it purges, or even curdles, that is of no great Disadvantage to the Patient, if he is not quite gone; for that Curdling shews great Redundancy of Gall, and an inflammatory State in the chyliiferous Tube, which requires vomiting, purging, and cooling, which the Asses-milk will do most gently and safely in some; and in a short time these Effects will cease, or may be easily removed by a little Decoctum Fracastorii at Night, or *Spa* or *Pymont* Water, or *Bristol*, or any chalky Water, for common Drink, when these Symptoms exceed. But, to be useful in very tender Cases, Asses-milk ought to be esteem'd Food rather than Physic, and taken accordingly; and tender Persons, especially in inflammatory Cases or Diseases, with acutè Pains, ought to live on it, and take it in such Quantities as they can bear. All cacoehymic, consumptive, thin, atrophous Persons, ought to enter upon it directly, and continue it twice or three times a Day, till they are quite recover'd: For I know nothing in Nature that will so soon recover and plump up the muscular Flesh and Habit, as Asses-milk long continued; for all Chyle that nourishes must first be reduced to the Nature and Consistence of Asses-milk, else it will never kindly pass into the Lacteals. I say nothing of Mares-milk, because it is not much in Use in *England*, though much admired in *Eastern* Countries.

Some Persons have a natural Aversion to Cows-milk; with others it curdles, and either binds too much, or purges, or so inflames and comes off in Phlegm, that they cannot take it without abundance of Pain and Suffering, which is an infinite Loss to them, it being the safest, gentlest, and most certain and universal Antidote in all chronical Distempers, without Exception of one. The only certain Way to make it agree, is first to cleanse the Primæ Viæ by Vomits, or an aloetic Pill now-and-then, mixing the Milk, at first, with *Bristol*, or any soft, but chalky Water, making it into a Gruel or Pudding, with Seeds, as Barley, Oats, Wheat, Sago, Rice, and the like; putting sometimes a Spoonful of White-wine to it; making Bread into Biskets with sweet Cow-milk, without Yeast or Salt, with a quick Firing; taking little at a time, but often; or, lastly, putting a Spoonful of compound Peony-water into a Quart, or a Tea-spoonful of Spirit of Hartshorn to a Pint; and thus, gradually, carrying off the Load, Heaviness, and Flatulence or Tumult it seems to raise, which entirely proceeds from the ill State of the Stomach and Bowels, that, by a Distemper, are loaded with Wind, Cholera, and Phlegm, where the concoctive Powers are inflamed greatly, the Glands tumid, the Lacteals obstructed, the Perspiration stopt, the Blood viscid, and all the Functions in a ruinous State; and not from the Nature of Milk, which is the mildest, softest, most nourishing, and salutary of all Foods; and the vulgar Error, of its being phlegmatic, is from its being the best and most effectual of all Balsamics, and all Lambatives: As we see it is formed by the Hand of Nature for the Young, that is, the Weak and Tender; and there is no real Difference between a weak and tender Animal by Nature, and one made so by a Disease, but that the Case is much worse in the last than the first; and, therefore, this natural Antidote is more necessary in it: And I never knew one, who laboured and endeavour'd heartily at it, but at last overcame these Difficulties, to his great Pleasure and Satisfaction, unless the Case was totally gone. Drinking a little green Tea, or repid Barley, or *Bristol* Water, when it oppresses, will help it off, and relieve. What makes Milk at first so disagreeable, painful, and oppressive, is the inflammatory, bilious, and acrimonious State of the Stomach and Bowels, which presently turns the Milk into a hard cheesy Curd, and sends off the Whey into the Lacteals too thin and too fast: Nothing in Milk, but the sweet white Whey, that is, the Serum, with the lightest and smallest Particles of the Curd, nourishes or can enter the streight and inviolable Mouths of the Lacteals; and hence only is the nutritive Virtue of Asses, Womens, and Mares-milk, and Goats-whey. Strong Renner, or any strong Acid, will turn Milk into a hard cheesy Curd, which will neither come up, nor go down, without much Labour, Struggle, and Oppression, especially in weak or bilious Stomachs. Weak Rennet will make a tender Curd, which will easily slide off: So that the whole Art of making Milk agree with any Stomach, is to prevent its turning into too hard a Curd; which any Alkali will do, Sugar, Crabs-eyes, Chalk, the volatile Spirits, and the like. As the Viscera cool, and the Cholera lessens, the Disorders from Milk cease. However, I should advise those, whose Stomachs abound with Bile, and so are in an inflammatory State, to live on Seeds, mealy and soft Roots, and well-dressed Vegetables, for some time; especially those who have bad Livers, and an Overflowing of the Gall; for, as to consumptive, scrophulous, scorbutical, diabetical, and cancerous Cases, Milk and Seeds are the best Antidote, and seldom disagree. I have been told of two Pigs, fed one with the

same Quantity of Milk, the other with sweet Cow-whey; the last became the fattest, whitest, and sweetest. But the most infallible Remedy is, for a long time to chew a little good Bark at Noon, and some Rhubarb at Night, constantly; at least till this Difficulty be overcome: The first gives a Tension and Spring to the Coats of the chyliiferous Tube; the second does not only the same, but, also, carries off the Load and Superfluity from it, before it accumulates and acidulates too high. Sweet Cow-whey, or Orange-whey, is an admirable Antidote in scorbutic and cacoehymic Habits, in bilious Vomitings, and hectic, or low feverish Cases: It is preferable to most, if not all sorts of Diet-drinks, antiscorbutic Juices, or Prisans; and they who would, at least all the Summer-months, drink a Quart of this, more or less, half in the Morning, and half at Night, would go a great Way to prevent autumnal Fevers, violent gouty Paroxysms in Winter, scorbutic and scrophulous Humours and Defecations, and cachectic Juices; especially if some particular Plant, as Scurvy-grass, Ground-ivy, Colts-foot, Baum, Sage, or the like, were infused in it, or a little Milk of Sulphur (in case it is not of itself too purgative) were first taken in a Spoonful of it.

Goats-milk, or rather its Whey, is a wonderful Strengtheners and Cleanser. It is surprising to me, that our Countrymen, after they have heard of the many great Cures, in deplorable Cases, perform'd by the drinking of Goats-whey, in *Scotland*, *Ireland*, and *Wales*, with a proper Regimen of Diet, Air, and Exercise, do not more generally apply to it at first, in low, consumptive, wasting, scorbutic, and cachectic Cases; or in all viscid or inflammatory Juices. It was in great Esteem among ancient Physicians; and the Goats feeding in a pure Air, and high Places, on the most tender, light, and aromatic Plants, must communicate a Spirit, Balsam, and Sweetness, to the Whey, and, consequently, to those who use it freely and plentifully: And accordingly we find its Efficacy; it gently purges, opens, cleanses, cools, and balmifies; and must surely be a more natural, and gentle Diluent than any artificial Diet-drink whatsoever; and in scorbutic, bilious, and inflammatory Cases, is a most sovereign Antidote. But it is common to see the most obvious, natural, and simple, but most beneficial and sanative Things, slighted and overlooked, while new, foreign, costly, and complicated ones, are admired: But Time and Suffering will give Wisdom and Experience, if any thing will.

I should here say something of Womens-milk, which is indeed most natural and homogeneous to human Bodies in very low consumptive Cases, and is found extremely beneficial in them; not only to the Young and Tender, but to the ancient Tender, and the Middle-aged, worn out by Diseases: This Milk would be infinitely more beneficial and salutary, were it not for the rank, high, foul Feeding, and common Uncleanliness of Nurses, and such low-condition'd Persons. If Nurses lived on Cows-milk, Seeds, Roots, and Vegetables, well-dressed; and drank nothing but Toast and Water, or Barley-water, or unfermented Liquors, and were kept clean and sweat; their Milk, passing through infinitely more fine and delicate Strainers than those of any brute Animal, would be a real Nectar in Atrophies, paralytic and nervous Cases: But, on the contrary, as Things are now constituted, Nurses are the most humourous, voluptuous, and domineering Persons in a great Family; and if Food and Nutriture can have any Influence on the Body, Humours, and Passions of the Child, I think it as necessary to have an healthy, clean, sober Nurse, as such a Mother, for the Heir of a noble Family; since it is certain, the Child is fed and increased as much, and is longer under the Influence of the Nurse's Juices and Humours, than it is confined in the Mother's Bowels; and, without all Doubt, the Body, Humours, and Passions, partake of the Materials with which Children, and even grown Persons, are fed and nourish'd, as constant Experience and Observation testify; and I should rather confine myself to the innocent and undiseased Nourishment of Water-gruel, Cow-milk, and Seeds, than to the Milk of a foul, rank, luxurious, and vitious Nurse. *Cheyne's Method of Cure, in Diseases of Body and Mind.*

The same Author, in his *English Malady*, further gives his Sentiments of a Milk-diet, in the following manner.

For those whose Constitutions are spoiled, who have had or corrupted Juices, violent and dangerous Symptoms, great Obstructions, are subject to the great and eminent Degrees of these Disorders, are threaten'd with an Hectic or Consumption, or a Destruction of some of the great Viscera, and who have tried all the other Methods and Medicines that could be suggested, without Success; for those I have found no other Relief than a total Abstinence from animal Foods of all Kinds, and all Sorts of strong and fermented Liquors, keeping only to Milk, with Seeds or Grains, and the different Kinds of vegetable Food, according to the Nature of the Distemper; from which they have never failed to find a present Relief, and a considerable Abatement of the Violence of their Symptoms. Many have been led into this Method, without any Advice or Direction, but merely from their own Feelings, and observing what they were easiest under: And many more have been absolutely cured, and freed from all their Disorders, by it; some even from a very short

time after they enter'd upon it, and others in a longer or shorter time, according to the Obstinacy of their Distemper, if the Disease has not been so far gone, as to be past all possible Relief from natural Means. In these last Cases it has done all that was in the Power of Art, has lessen'd their Miseries, and protracted their Fate, and has given more Ease and Quiet than they could receive from any other Method they could turn to, except Opiates and Anodynes; to which one is never to give himself, till he has given up all Hopes of a total Cure. Where the Nerves and Solids are naturally weak, or the Persons subject to nervous Disorders from their Infancy, there is no Method will absolutely free them from some slight Returns of their former Symptoms; but this Diet I have found to do more than any other Method whatever: However, no one ought to undertake this Regimen, without the Advice of some honest, able, and experienced Physician, who has considered his Case and Constitution, and can direct him aright in the proper Management of it, and the Methods of keeping up the due Tension of his Solids, which such a Diet may probably somewhat relax, while it is purifying the Juices, and cleanting the Habit; and can likewise judge of his Constancy, Firmness, and Resolution to go thro' with it, since, in some deep-rooted and confirmed Distempers of this Kind, tho' the Patient may find a considerable Relief for many Months, yet possibly, when the gross Impurities, the Cholera, Phlegm, and Salts stor'd up in the Habit; raising Sickness, Lowness of Spirits, and a Return of all, or many, of the former Disorders; this may blast all his Hopes, and mightily discourage him; and make him condemn the Method, and blame the Physician who advis'd him. But, if he stands this Shock with Firmness and Patience, (which will be readily relieved by proper Evacuations, Volatiles and Astringents) he may be assured of Success, and his perfect Recovery is at hand. But as there are incurable Disorders, which no Method or Medicine will reach, so it frequently happens in this: And, even after the Patient is recovered by this Method, he must resolve to continue in it ever after, at least, not to indulge himself in a much higher Degree of Food, without suffering presently, or hazarding a Return of all his Disorders; for, as *Celsus* observes, in all Disorders of the Stomach, by whatever Methods the Patient is recovered, he must continue in the same, when he is well; for the Disease will return, unless Health be protected by the same Means that restored it.

I would not be understood here (as some have maliciously and artfully misrepresented me, contrary to my most deliberate Intention) to recommend a total Milk and Vegetable Diet, or, indeed, any particular one, to every one that is sick, or out of Order: I never once had such a Dream. I have given the Preference, in my *Essay on the Gout*, to the common Diet of well-chosen Flesh-meat, and good middling ripe Wine, even in that obstinate and painful Distemper, commonly treated by a Milk-diet. And, in my *Essay on Health and long Life*, I have endeavoured, as far as I could, to enable the Patient to the proper Choice of animal Foods fit for his Constitution, and the Disorders he labours under; and have, from considering the Nature of the Distemper, actually ordered some, who were in a Vegetable Diet, to change it for an Animal one. A total Milk and Vegetable Diet, besides its being particular and inconvenient in a Country where animal Food is the common Diet, and affording no sufficient Store of animal or mechanical Strength, (to Persons naturally weak, or who have not been habituated to it from their Cradles) may bring the Patient into such a State, that, without the utmost Risque or Danger, he can never leave it off again. And, while he is under it, by relaxing and softening the Solids, in some Degree, when it is a sweetening the Juices, it brings him under a Necessity of keeping up their Tension with proper, astringent, warm, and cordial Medicines, (which are of the same Nature with a more generous Diet) and incessant Labour and Exercise: And in gross soul Bodies, or those subject to goutish, scorbutic, or other inflammatory Disorders and Paroxysms, it requires the utmost Care and Caution, that the Disease be not thereby, at first, thrown inwards, and so the extreme Degrees of Vapours, Lowness, and other nervous Disorders, ensue, which this Diet is designed to prevent. Indeed, there are some Cases, wherein a Vegetable and Milk-diet seems absolutely necessary, as in severe and habitual Gouts, Rheumatisms, cancerous, leprous, and scrophulous Disorders, extreme nervous Colics, Epilepsies, violent hysterical Fits, Melancholy, Consumptions, and the like, and towards the last Stages of all chronical Distempers: In such Distempers I have seldom seen a Milk-diet fail of a good Effect at last; but in most other chronical Distempers, nervous or humorous, and in all their tolerable Degrees, and first and second Stages, a common middling, plain and moderate Diet is certainly the best and safest; a little animal Food of the youngest, lightest, tenderest, thinnest, and sweetest Kind, and a small Proportion of generous Liquors, to keep up the due Tension of the Solids, under the Regulations I have mentioned; weak Broths, and Soups made of tender young animal Substances, without Fat or Butter, and thickened with a due Proportion of vegetable Seeds or Grains; such as those of Wheat, Barley, Rice, Sage, Oats, Miller, and the like; such a Diet, I say, will, in my Opinion, answer all the Ends of pure Milk and Vegetables; and, as I have

found such an one less dangerous, so it is a more easy Regulation, as Things now stand, and wants only a few Months in the same Course, of that Cure which might be gained, perhaps, by going into such a particular Method of Diet. I am never for entering upon extreme or uncommon Means of Diet or Medicines, but in extreme and mortal Cases; for I always think, that common Sense is the best Indication of a sound Mind, and common Life the best Means of temporal Happiness, else they had never been common.

One great Advantage that a Milk and Vegetable Diet has over a Flesh and Animal one, lies principally in this; that one may thereby avoid loading the Juices with too many Salts of any kind, or thickening them with more gross and hard earthy Particles, or such as cannot be broken or comminuted by the natural Force of the weak Solids; and by it Patients will not be so readily led into Errors in the Quantity; Nature not being tempted to receive or retain such unprovoking and impoignant Viands, whereby they avoid the Snare and Temptation that Liquorishness, and high Relish, throws many into. Another Advantage is, that it effectually dilutes and cools too thick or hot Juices, and that a sufficient Quantity of it may be taken to keep the Bowels and Blood-vessels full, and sufficiently turgid, whereby the Circulation, and natural Evacuations and Secretions will be more uniformly carry'd on in such weak Habits, than can possibly be under an animal Diet of so small a Quantity, as must be necessary in such Cases, unless it be extremely diluted with Water, and the farinaceous Vegetables, which bring it to the same State: And, therefore, in greatly depraved Habits, and such deep and dangerous Diseases as I have mentioned, it is the most proper and absolutely necessary Regimen to carry on the natural Functions without Pain and Uneasiness, and to preserve the Sides of the Capillary Vessels from coalescing and growing together, and so preventing irremediable Obstructions; tho', in other more slight Cases, it may be not only not necessary, but even sometimes inconvenient and hurtful: For tho' it will always produce at length Freedom from Pain, and Freedom of Spirits, and a greater Capacity for intellectual Functions; yet it will never beget mechanical Force and Strength, or an hardy, strong Constitution, which, in some Circumstances, Employments, Trades, and Professions, is indispensably necessary; so that such a Course and Regimen is only proper for those who follow intellectual Occupations, and expect chiefly mental Pleasures, Freedom from Pain, Cheerfulness, and Length of Days; or, in short, for the Studious and Sedentary.

A total Ass-milk Diet (about two Quarts a Day without any other Meat or Drink) will, in time, cure a Cancer in any Part of the Body, with mere common Dressings, provided the Patient be not quite worn out before it be begun, or too far gone in the common Duration of Life: And even in that Case it will lessen the Pain, lengthen Life, and make Death easier, especially if joined with small interspersed Phlebotomies, Millepedæ, Crab-eyes prepared, Nitre, and Rhubarb, properly managed: But the Diet, even after the Cure, must be continued; and never after greatly altered, unless it be into Cow-milk, with Seeds.

Any Cancer that can be cut out, contracted and healed up, with common, that is, soft, cool, gently astringent Dressings, and, at last, left as an Issue on the Part, by a Cow-milk and Seed-diet, ever after continued in, may be made as easy to the Patient, and his Life and Health as long preserved, as if, almost, he had never been afflicted with it, especially if under Fifty.

A total Milk and Seed-diet, gentle and frequent Phlebotomies, as Symptoms exasperate, a little Ipecacuanha, or Thumb-vomit, repeated once or twice a Week, chewing Quill-bark in a Morning, and a few Grains of Rhubarb at Night, will totally cure Consumptions, even when attended with Tubercles, an Hæmoptoe, and Hæctic, in the first Stage; will greatly relieve, if not cure, in the second Stage, especially if Riding in a warm clear Air, be joined; and make Death easier in the third and last Stage.

A total Cow-milk Diet, about two Quarts a Day, without any other Food, will, at last, totally cure all Kinds of Fits, Epileptic, Hysterical, or Apoplectic, (which are all but Degrees or Symptoms of one general Disease, which I call Scorbutico-nervose, or the plain Scurvy, in its last Stage) if entered upon before Fifty: But the Patient, if near Fifty, must ever after continue in the same Diet, with the Addition only of Seeds; otherwise his Fits will return oftener, and more severely, and at last cut him off.

A total Cow-milk Diet, without any other Food, will bid fairest to cure a Hemiplegia, or even a Dead Palsy, and, consequently, all the lesser Degrees of a partial one, if entered upon before Fifty: And this Distemper I take to be the most obstinate, intractable, and disheartening one that can afflict the human Machine; and is chiefly produced by intemperate Lechery, with its necessary Attendant habitual Luxury. It may be retarded in its Progress by strong Vomits, mercurial and fetid Gum Medicines, Air, Gestation, the Pilule Æthiopice of the *Edinburgh Dispensatory* of the last Edition, with Water-beverage, and Mineral Water, and cold or hot Bathing in the respective Seasons; but this is never to be eradicated, if the Stroke is deep, or Life far spent, but by Cow-milk only.

A total Milk and Seed-diet, with gentle Vomits before and after the Fits, chewing Bark in a Morning, and Rhubarb at Night,

Night, with Phlebotomy about the Equinoxes, will perfectly cure the Gout in Persons under Fifty, and greatly relieve those further advanced in Life; even those who have chalky Nodes, and fixed Joints, especially joined with Air and Exercise, and strong and constant Friction; but must be continued ever after, if such desire to continue well.

Of these mentioned Cases and Cures, I have known or treated Instances, so that they may, with high Probability, and medical Certainty, be depended on. The following are reasonable and probable, but not so certain, for want of sufficient Experiments.

A total Milk and Seed-diet, with cool Purges now-and-then, as of Manna and Cream of Tartar, or *Glauber's Salt*, with a Pill of the *Præcipitat. per se*, or Pills of the *Mercurius Alcalifatus*, with *Terebinthina cocta*, will, in six Weeks, or a Month, totally cure and eradicate any Venereal Distemper, in its first Stage, or while it is only termed a *Gonorrhæa virulenta*, without other Symptoms, if Bark and Rhubarb are chewed for some time after, to consolidate and constringe.

A total Milk and Seed-diet, continued for six or eight Months, will totally cure and extirpate Venereal Distempers in their second Stage, when they may be called the great Pox, with Bubos, Cancers, and cutaneous Defecations, if Pills of *Præcipitat. per se*, or of *Mercurius Alcalifatus* and Gum Guaiac. with Dressings of the *Unguentum Neapolitanum* constantly applied, be persisted in during that time, which may be done without keeping House, or Interruption of Business.

In those who, for the last Stages of Venereal Diseases, have unsuccessfully gone thro' a full Salivation, a total Milk and Seed-diet, long and strictly continued in, would certainly cure and eradicate the Distemper, if no other hereditary Disease be complicated with it: Whereas, in the common Management, a total Cure is seldom to be obtained, and thereby many are miserable all their Days.

An habitual Asthma, if managed with a Milk and Seed-diet, Quicksilver well purified, half an Ounce twice a Day, Squill Vomits about new and full Moon, and after with the Squill Pills of the *Edinburgh Dispensatory*, might be totally eradicated, especially if a Southern Climate, and warm clear Air, were joined.

In a painful and dangerous Pleurisy, after a good Part of the Size of the Blood has been drawn off by large Phlebotomies, and the Distemper, by saponaceous and oily Emulsions, with volatile Alkalies, is lessened; if a total Milk and Seed-diet were instituted, and duly persisted in, the Blood and Juices would, in time, thereby be sweetened, and a Return, a Phthisis, and an Empyema, be effectually prevented.

A Milk and Seed-diet, with Vomits of *Ipecacuanha*, and a few Grains of Tartar emetic, repeated every new and full Moon; in the Intervals *Alcalifatus* and Guaiac. Pills continued; and, when the Blood is sufficiently attenuated, and the Obstructions opened, if cold Bathing, with vegetable Astringents, (Bark especially) were employ'd to finish the Cure, and the same Regimen afterwards continued; this Method, I think, would sooner, more perfectly, and more durably, cure and extirpate all kinds of Manias, Phrenesies, and Madneses, (which are so shamefully frequent in this Country) than the common one of treating them with tearing Laxatives, and scraping Cathartics, under the usual full strong Diet of Animal Food, which does but add Fuel to the Distemper; and generally the Distemper returns in a greater or lesser Degree, to the Party, or his Posterity.

In any Hemorrhage, either from the Lungs, Nose, Anus, or Uterus, how violent soever, if, after some repeated Phlebotomies, to moderate the Flow, the Use of *Eaton's Styptic*, in *Bristol Water*, or the *Tinctura Rosarum*, with Bark in Substance, Extract, or Decoctions, were freely administered, a total Milk and Seed-diet was ordered and duly prosecuted, it would totally cure these Symptoms, would at last sweeten and balmify the Blood and Juices, and prevent Returns. For all Hemorrhages are of the same inflammatory and acrid Nature, differing only according to the Part where the Rupture of the Capillary Vein happens; and suppose a thick Curd, and a sharp Serum, in the Blood.

A Jaundice, black or yellow, proceeding from a spoiled or obstructed Liver, a viscous or morbid Bile, or biliary Stones, which prevent the Separation of the Choler, and its Passage into the Intestines, by which means it is forced back into the Veins, is rarely, and, perhaps, never to be totally cured or eradicated, but by a Milk and Seed-diet, frequent and active Vomits, saponaceous Emulsions, with volatile Alkalies, Mercurial Plaisters on the Region of the Liver, *Bath Waters*, and constant Riding. This Method, I know from Experience, will perform a total durable Cure, and otherwise I never saw it effected.

A total Milk and Seed-diet, with sole Water-beverage, would, at last, cure and extirpate any Degree of the Scurvy, scorbutic Ulcers, and impostumated Glands, even the *Lepia Græcorum* and *Arabum*; or, at least, make them infinitely better, if duly continued; and *Æthiops Mineral*, *Cinnabar of Antimony*, or the *Aqua Argentea*, were joined to it in a long Continuance.

Of all others, a total Ais-milk-diet is the coolest, most sweetening and restorative possible: Next to it is Cow or Goat-milk

Whey, if not too flatulent or purgative: Cow-milk, boiled or raw, for the whole Food, is next in Degree to those.

La Motte affirms, that, in abundance of Experience, he has always observ'd that Milk which is thinnest to be best; insomuch that he seldom failed telling the Condition of the Child by seeing the Nurse's Milk. For the Child which sucks Milk that is clear and thin, is generally plump, fresh, and healthy; on the contrary, when the Milk is thick, the Child is lean, very hot, and sickly.

He, also, remarks, that those Children, which suck thick Milk, seldom wet their Beds; but those who feed on that which is thin and clear, wet them abundantly.

If Milk, which is clear, has a sweet agreeable Taste, as if it was sugar'd, and spins out of the Breast with Impetuosity, when a little prest, 'tis a Sign the Nurse has a great Quantity; and then it runs out of the Breast spontaneously, in a very little time after the Child has suck'd.

That Milk which is thick, has often a bitter, salt, or some other disagreeable Taste; and drops from the Breast, when prest'd. Mean time the Breast is soft; a sure Sign, that it does not fill with Milk.

In order to taste the Milk, the Mouth must be several times rins'd with Water, and some Milk must be put upon a Plate, and a few Drops may then be tasted.

Large Breasts are subject to have but little Milk. Breasts that are moderately large, with a red Nipple, which hangs free, are to be preferred.

'Tis difficult to judge whether a Nurse is with Child or not, because they seldom have the first Symptoms of Pregnancy, as Sickness, Vomiting, and the like.

When a Nurse is with Child, the Child which sucks of her grows ill, the Nurse becomes thin and lean, and the Milk diminishes; but this does not always happen before the Nurse is far advanced in her Pregnancy.

Nurses that have the menstrual Flux, are sometimes not the worse for it, provided the Child does not grow ill with their Milk; but they are never to be chosen; for the Child frequently, during the Flux, will not suck, and is ill. *La Motte*.

The same Author advises, instead of all the boasted Applications to the Breasts, in order to dry up the Milk, to apply a soft, warm Napkin to them; and not to let them be cool'd, or touch'd, let the Pain be never so violent.

The greater the Violence and Impetuosity, with which the Milk comes into the Breasts, the sooner the Pain ceases, especially if it does not run out; for, if it does, the Pain is less, but continues longer.

Care must be taken, when the Milk runs out, to change the Cloths frequently, for fear the Breasts should take Cold, and the Milk curdle in them, and cause a Tumor.

Great Care must, also, be taken, that a Woman take no Cold at her Arms, or Hands; she must, therefore, wear her Shift very low, and wear Gloves or Mittens; for Cold, taken at the Hands, will cause Tumors in the Breasts. For this Reason it would be most prudent to keep the Hands constantly in Bed, if it can be done without causing slight Vapours, as it sometimes does.

Taking Cold at the Feet will, also, cause a Tumor and Abscesses in the Breasts. *La Motte*.

Of the salutary Quality of WHEY.

So great is the Divine Goodness and Clemency to Mankind, that we are not only supplied with a wonderful Variety of efficacious Remedies, for the Prevention and Cure of as great a Variety of Diseases, from the vegetable, animal, and mineral Kingdoms, but our daily Food is, also, endued with Virtues adapted to the Removal of the most acute Distempers. Milk is an evident Instance of this, which, as it is perfectly suited to the Nourishment and Support of the Body, at every Age, in every Disposition and Temperament, so is it beyond all Dispute intitled to the Superiority among the Safeguards of Health; insomuch that we hardly find any thing in Nature, either so safe or efficacious as this Liquor. But, as the most excellent Remedy, ill prepared, or imprudently administered, is prejudicial, so may Milk, of any Sort, and the Use of it, be attended with ill Consequences; for the Nature and Disposition of all Food and Medicine is such, that it has both a salutary and noxious Principle, and of consequence, unless the latter is skilfully corrected, must do Mischief. It is, therefore, the Part of a prudent Physician judiciously to distinguish between them, reject the Pernicious, make Choice of the Beneficial, and, laying aside the Destructive, to make use of those only, which may procure Health. In this he will find great Assistance from Natural Philosophy, but more especially from Chymistry.

Upon this Consideration, and from an earnest Desire of making every thing in Physic serviceable to Mankind, we shall consider the medicinal Virtues of Milk, and demonstrate that its more fluid Substance, called Whey, is a sovereign and unparalleled Remedy; whilst the more gross, heavy, and terrestrial Part, particularly when separated from the Whey, is always pernicious both in Food and Medicine.

Though

Though nothing is more wholesome, or better accommodated to the Nourishment of animal and even human Bodies, in so much that it may be justly styled the most considerable of Aliments, yet, amongst the Variety of Sustenance we take, nothing is so dangerous, nothing occasions so many violent Disorders, as Milk: For as every Kind of Milk consists of two Substances, the one fluid, the other solid, and since, without an intimate Union and Conjunction of these, it is neither salutary, nor yields a proper Nourishment, so, without Doubt, when the caseous Substance is condensed into a Curd, it assumes a different Quality, and proves unfriendly to Health. We seldom, however, find any Aliment which admits of so easy a Dissolution of its Mixture, and in which the component Parts of the Mixture are so soon separated from each other; and this so entirely, that the Crasis is not only easily destroyed by an Affusion of some particular Liquids, but the caseous Part even recedes and coagulates spontaneously.

Every one knows, that all Milk, when left at Rest, in Summer, as also in Winter, if the Room is warm, much more if it thunders or lightens, will curdle of itself very easily and soon, the caseous and buttery Substance departing from the serous, and adhering separately to the Vessel. It is, also, known, that Milk coagulates by the Affusion of an acid Liquor, or such as has any Acidity latent in it, such as Vinegar, for Instance, Juice of Citron, *Rheish* Wine, or Malt Liquor; and this happens sooner, if the Milk be warm. Yet it is surprising, that a strong and concentrated Acid, such as Oil of Vitriol, is so far from condensing Milk, that it renders it more fluid; perhaps for this Reason, that the ethereal Principle, mixt with Oil of Vitriol, so attenuates and agitates the Parts adapted to Coagulation, as to prevent their curdling and concreting. It is remarkable, that weak Spirit of Wine, when poured into Milk, produces hardly any Alteration; but when the same Spirit, highly rectified, is added to it, especially in a considerable Quantity, it converts it into a Milk-curd; which, in my Opinion, may be thus accounted for: This pure Spirit of Wine, absorbing the humid Part of the Milk, causes a Seccession of the grosser Substance from the Pores of the more liquid Part, in the same manner as it turns saturated Spirit of Sal Ammoniac into a Curd.

These things produce a Coagulation of Milk, when out of the human Body: Now let us consider, what principally destroys the Union of the serous and caseous Parts within ourselves. The Stomach is seldom without an Acid, because most of our Food both solid and fluid contains an Acidity, which remains, especially after the Digestion of the Aliments, and, having nothing to check it, adheres firmly to the Coats of the Stomach: But, as this Acid differs in its Quality and Virtues, so likewise the Coagulation, produced in the Milk, differs; for, in some Cases, the Mixture of the Milk is only disturbed, the grosser Parts unite moderately, and still remain swimming in the more fluid Part; but in other Cases the grosser Parts are converted into an hard, firm, and heavy Curd, which subsides, and, firmly adhering to the Coats of the Stomach and Intestines, is, with Difficulty, dissolved, but afterwards, by an Association with excrementitious Sordes of a worse Quality, lays the Foundation of dangerous Disorders. This Consequence, indeed, rarely follows, though the Acid of the Stomach be considerably strong, unless the Stomach itself be infirm and weak, so that the Aliment continues too long in its Cavity, and unless it is affected with a preternatural Heat, which destroys the due Commixture of the various Parts of the Milk.

From what has been said, we may very plainly discover, to what Constitutions, and in what Disorders, Milk, from the Coagulation it undergoes in the Stomach, is hurtful and destructive. For, first, we observe, that the most terrible Disorders of sucking Infants proceed from coagulated Milk, particularly if their weak Stomachs are overloaded with the grosser Milk, by giving them the Breast too frequently, so that they cannot duly digest their Contents, which degenerate into a Coagulum, that, by continuing there, becomes very acid and corrosive, and the bilious Juice being added to it in the Duodenum, it ferments, grows green, and corroding the most tender and exquisitely sensible nervous Coats of the Stomach by its acute Acrimony, excites severe Pains with Inquietude and Anxiety, which are often followed by mortal epileptic Convulsions.

Besides, Milk, especially that which is replete with a large Quantity of caseous Substance, is very prejudicial to old Men, partly because all Food soon grows acid in their Stomachs; and partly because the Milk itself, as well as the Curd, remains too long there, through the Laxity and excessive Languor of the peristaltic Motion, whence arise anxious Pains of the Præcordia, Gripings, accompanied with a Tenesmus, and Inflation of the Belly: The Fæces, also, are discharged with Pain, a Corrosion, and Itching of the Intestines; the Body, also, is wearied, and the Appetite lost. But there is hardly any Disorder, in which the Use of Milk is so detrimental, as that commonly termed the hypochondriac Affection, in which, from an evident Disturbance of the Business of Concoction and Excretion by Stool, arising from Spasms, and a copious Increase of Flatulences, many acid Crudities are generated in the Stomach, which, as they soon coa-

gulate and precipitate the Milk received there, bring on very terrible Symptoms. Nor is it by any means expedient, to feed those with Milk, who are recovered from a violent Distemper, because the Stomach cannot digest this strong Nutrient, but retains it too long, so that by Stagnation it assumes a destructive Quality, and contributes to the Production of many Diseases.

In what Diseases *Hippocrates* prohibits a Milk-diet, will appear evidently from *Aphor. 64. Sect. 5.* which runs thus: "It is improper to give Milk to Persons afflicted with Pains in the Head, to such as are feverish, or labour under an Elevation and Rumbling of the Præcordia. It is, also, improper for those afflicted with Thirst, for such as have bilious Stools in acute Fevers, and such as have lost a great Quantity of Blood." This I take to be the Reason, why Milk is prejudicial in Pains of the Head: There is, by means of nervous Membranes, a great Consent between the Stomach and Head, so that, if the Head is tormented with exquisite Pain, the Stomach is likewise affected, and not capable of duly concocting, dissolving, and expelling the Aliments. Besides, a Pain of the Head often takes its Rise from a Disorder of the Stomach, especially when the latter does not properly perform the Office of Concoction, and is overloaded with acid and viscid Crudities. In both Cases drinking Milk is productive of bad Consequences, since it continues long on the Stomach, and is, by that means, form'd into a prejudicial Coagulum.

Besides, *Hippocrates* forbids the Use of Milk in violent Fevers; nor is there any Difficulty in accounting for this. For, first, intense Heat is a very great Enemy to the homogeneous Mixture of Milk; and we are convinced by daily Experience, that Milk is soon condensed into a kind of Cheese, by external Heat. Farther, in all Fevers, the Patient is somewhat costive, or labours under a total Constipation, whence that grosser, excrementitious Matter of the Milk, which is no way suited to a Conjunction with the vital Humours, still remains, and, being added to the Cause of the Fever, augments it, so that the spasmodic Strictures are, also, increased. *Hippocrates*, also, thinks Milk improper for these, who are troubled with bilious Stools or Cholera; because this Disorder derives its Origin from a very acid corrosive Juice, mix'd with the sulphureous Parts of the Bile, and accommodated to dissolve the Texture of the Milk. He disapproves of Milk, likewise, for Persons who have lost a great Quantity of Blood, which, by too much exhausting the Heat and Spirit, breaks and debilitates the Strength and Tone of the Stomach and Intestines, by the Assistance of which the Solution of the Food, the Elaboration of the Chyle, and Discharge of the Fæces, are performed; so that, by this means, Milk, after being drank, grows acid and thick by its Continuance, and terrible Stagnations of the excrementitious Matter happen in the Primæ Viæ.

But if we are not satisfy'd with the Reasons already given, and would have them corroborated by the Testimonies of the most approved Physicians, both antient and modern Authors insist upon the bad Consequences of coagulated Milk. Thus, *Avicenna*, *L. 4. Fen. 6. Tr. 3. Sect. 96.* speaking of Milk, says, "If Milk becomes acid in the Stomach, from hence arises a Vertigo, Syncope, and pungent Pain, in the Mouth of the Stomach; and such an acid Milk is sometimes productive of a mortal choleric Passion." And *Dioscorides*, *Lib. 2. Cap. 64.* judiciously advises bilious and choleric Persons to abstain from all Milk, on account of the Coagulum. *Matthiolus*, *Comment. in b. 1.* adds this as the Reason: "Milk, says he, formed into a Coagulum, produces Difficulty of Breathing, oppresses the Stomach, fills the Head with Vapours, and is concocted with great Difficulty." Further, *Bellonius*, in *L. 2. Epidem. p. 211.* writes thus: "A Man labouring under a Dysentery, after the unsuccessful Use of many Medicines, was advised by his Physicians to the Use of new Cow's-milk: This coagulating in his Stomach, it is incredible, what terrible Symptoms, such as Swoonings, and others of a like Nature, were by that means produced." *Heur. ab Heer. Observat. 15.* likewise, gives an Account of one, who by means of coagulated Milk, was seized with a cold Sweat, and breathed with such Difficulty, that he dreaded a Suffocation; that he was oppressed with a Nausea; and tossed himself in his Bed, with frequent Deliquiums. The same Author, also, affirms, that another Patient was, by means of coagulated Milk, thrown into a Cholera. *Amatus Lusitanus*, *Cent. 6. Curat. 5, 6.* informs us, "that coagulated Milk produced a heavy Weight, with Pain about the Præcordia; and that the Patient, when he attempted to vomit, was immediately suffocated." He likewise, from the Authority of *Actius*, affirms, that very bad Symptoms have been produced by Milk in Patients afflicted with a Dysentery. More Instances of this Kind are to be met with in *Dodonæus's Annot. C. 17.* and *Foresterus*, *Lib. 18. Obs. 13.* 'Tis certain, that the best Physicians, from the ill Consequences produced by coagulated Milk, have not hesitated to assert, that the Coagulum of Milk has a poisonous Principle in it.

Since, therefore, such imminent Dangers arise from Milk coagulated in the Stomach, we shall, next, briefly consider what Remedies are suited to the Cure of Disorders of this Kind. *Sennertus*, *Lib. 6. Prax. Part. 8. Cap. 39.* and in *Paralip. p. 17.* approves

proves of Emetics; and *Dioscorides* recommends a Lixivium. But I am of Opinion, that Alkalies, whether lixivial or earthy, given before the Use of Milk, best prevent its curdling, by absorbing the peccant Acid; and, when that is seasonably corrected, the usual Symptoms, produced by its Coagulation, are also prevented. But if the Milk is already condensed and coagulated, and the Patient in a bad Situation, a pretty large Quantity of aqueous Diluters, such as Infusions of Tea, or *Paul's Betony*, are very serviceable for diluting the Coagulum, and dissolving and washing away the viscid Lensor. And if there is a Nausea and Disposition to vomit, this is greatly promoted by a sufficient Draught of warm Water, especially if it is rendered more stimulating and efficacious, by dissolving one or two Grains of emetic Tartar in it. It is proper too, if the Strength will permit, to procure an Evacuation both by Stool, as well as by Vomit; for which Purpose, two or three Ounces of Manna, in an aqueous Vehicle, with two Grains of Tartar, will be sufficient. And these are serviceable both to Adults and Infants, if the Physician prescribes them with Judgment, and accommodates their Doses to the different Ages and Degrees of Strength in different Patients.

But great Danger is not only to be dreaded from Milk coagulated in the Stomach; but, also, a too frequent Use of Milk, which has but little of the serous, and much of the gross Substance, disposed to Coagulation, such as Goat's, Cow's, and Sheep's Milk, is not equally convenient for all, but detrimental to many. For Milk is less nutritive and salutary to Patients of a spongy and porous Habit, abounding with slender and numerous Vessels; and, also, in Cases where a large Quantity of inspissated Humours are lodged in those Viscera, which consist entirely of Blood-vessels, such as the Liver, Spleen, Kidneys, and Lungs, so that these Vessels are full and infarcted with Blood: In this Case, the Exhibition of Milk is improper, lest, by its thicker Parts, these Vessels should be still more infarcted and obstructed.

This Doctrine is, also, confirmed by a memorable Passage of *Galen*, quoted by *Marsilius Ficinus de salubri Vitæ Ratione*. "The frequent Use, says that Author, of Milk, which has little of the serous Humidity, and much of the caseous Substance in it, is not proper for every body, and especially if the Kidneys are subject to generate the Stone; it excites Obstructions of the Liver likewise in those subject to such a Misfortune, as those are who have the Extremities of the hepatic Vessels narrowed." And, for this Reason, *Aetius* carefully inculcates this Doctrine, that he who would use Milk without any Disadvantage, should have the Ducts of his Viscera open, and his Veins large. Besides, *Hippocrates*, by a Case in *Epid. Lib. 3.* affirms the Use of Milk to be noxious in Disorders of the Liver: "*Apollo-nius*, says he, was a Man of large Viscera, and had a continual Pain about his Liver. He then became icteric, flatulent, and somewhat pale; he was, at first, gently indisposed, and, at last, confined to his Bed. But, using a large Quantity of crude and boiled Preparations, both of Sheeps and Goats Milk, and taking, at the same time, but little Food, his Symptoms became very terrible, his Fever was increased, he became costive, and discharged a small Quantity of thin Urine." *Dioscorides* is of the same Opinion with *Hippocrates*, and prohibits the Use of all Milk to Persons whose Spleen and Liver are affected, to those labouring under Epilepsies, Vertigos, Disorders of the Nerves, and Head-achs.

Nor is there any Difficulty in assigning a Reason for this: For since the violent and long-continued Pains of the Head, or Abdomen, generally draw their Origin from a Suppression and Interception of the free Progress of the Blood and Humours thro' these Parts; and since this Interception of the Circulation is immediately followed by Stagnations, Obstructions, and Infarctions; hence, at last, arise, in the lower Belly, a Cachexy, the yellow and black Jaundice, Dropsies, and the Stone in the Kidneys; in the Head, Madness both of the melancholic and furious Kind, Epilepsies, and Pains attended with a Sense of Weight; in the Lungs, polypose Concretions, a difficult Respiration, Spitting of Blood, and Consumptions. It is easy to perceive, that the Use of Milk, especially after it hath stood some time, by means of the grosser Substance, prone to coagulate, augments the Obstruction of the very small Canals, and is dangerous, particularly in corpulent Patients, and such as have contracted a bad Habit of Body by too much Ease, or a too luxurious Manner of living.

But the more prejudicial, and subject to generate many Disorders, that gross Substance of the Milk prone to Coagulation is, the more serviceable in its Turn to human Nature, or the Temperament and vital Motions of the Fluids and Solids, the more salutary, and suited to prevent and cure Diseases, is that humid Portion termed *Whey*. The most ancient and learned Physicians long ago discovered its salutary Quality in curing Diseases; and have recommended it, in the strongest Terms, to Posterity. Thus *Dioscorides*, the oldest and best Writer on the *Materia Medica*, *Lib. 2. Cap. 64.* speaks thus of the excellent Virtue of Whey: "Whey, says he, when separated from the grosser Parts of the Milk, is a much more effectual Purge, and is given to those whose Bodies we would render soluble without the Use of acrimonious Substances, as to Persons labouring under Me-

lancholy, the Leprosy, the Elephantiasis, or Eruptions over the whole Body." To this *Galen* adds, "That Whey is either drank; or injected by way of Clyster, to promote Stools, on account of its deterfivè Qualities; for it cleanses and deterges the Acrimony from the Intestines without Corrosion." And in another Place he exactly delineates the salutary Qualities of Whey in these Words: "Simple Whey is particularly proper for tender Patients, whose Bellies and Intestines only we would cleanse and purge; and for those whose Intestines are, perhaps, easily ulcerated by any Medicine; those who, in consequence of a bilious Temperament, are subject to Disorders of the Abdomen, or labour under a Tenesmus, and whose Reins, Bladder, and Uterus, are subject to Exulcerations; and lean Persons, who do not become fleshy by Aliments, but yet want Purgings. To all these Whey should be given, without the Addition of Salt, or any other Medicine. Whey is, also, safely exhibited to Children, Women, and old Persons, even during the Heat of a Fever, at which time, especially, all other Medicines are suspected. The Use of Whey is singularly effectual on Patients and Diseases which require extraordinary Assistance; especially Eruptions of a long Continuance, livid Spots, and all Depravations of the Humours tending to the Skin, such as a Leprosy, and others of a like Nature; inveterate and malignant Ulcers, Achors of the Head, weeping Eyes, an Itch of the Eyelids, Blotches in the Face, and continued Paroxysms of Fevers; and to those who, in consequence of a bad State of Health, are about to fall into a Dropsy."

Others, likewise, have observed and extolled the excellent Qualities of Whey. And *Celsus*, *Lib. 1. Cap. 12.* ascribes a purgative Quality to Whey and Asses Milk. "The Antients," says he, purged by various Medicines; but in all Diseases they gave Milk, either Asses or Goats, and boiled it with the Addition of a little Salt, removing the coagulated Part, and ordering the remaining Whey to be drank." But the Testimony of *Mesue* is so full, that it deserves a Place here. "The Whey, says he, of Goats Milk, is, in itself, an innocent Medicine; and that Species is best, which is made of black Goats Milk, who feed in good Pasture, and have newly brought forth. This Whey attenuates, cleanses, deterges, and, by the nitrous Quality with which it is furnished, gently renders the Body soluble, without any Degree of Acrimony; it also carries off the black Bile produced by the parched Humours; whence it is wonderfully beneficial to maniac and melancholic Patients. It is good in Infarctions of the Viscera, and beneficial in Diseases from thence; to such, for Instance, as are afflicted with a Dropsy, Jaundice, or Disorders of the Spleen. It is effectually prescribed for those who labour under biliary Fevers, or Obstructions of the Viscera and Vessels. It is, also, proper for Disorders of the Skin arising from Bile, and parched Humours; for which Reason it is of great Service in Lichens, Vitiligos, Alphi, Pforas, and Leprosies."

Nor must we neglect *Aetius's* Opinion of the Usefulness of Whey, which he has thus declared: "Drinking Whey, says he, is surprisingly efficacious in Ulcers of the Lungs, Intestines, Kidneys, Bladder, and Uterus; and in Eruptions and other Alperities of the Skin; as also against the Effects produced by the internal Exhibition of Cantharides."

From these Authorities then, without alleging any more, I think it is evident, that the Antients had Whey in very high Esteem, and prescribed it in many Distempers. In a Word, they almost unanimously assigned to it a purgative Quality, especially when saline, acrid, bilious Humours were to be purged off gently, and without Acrimony. Further, they warmly recommended the Use of it in Diseases which arise from the Acrimony of the Juices corroding the tender nervous Coats, and Fibres, and subcutaneous Glands: Of which Kind are, internally, Ulcers of the Lungs, Bladder, and Kidneys; and, externally, Lichens, Impetigos, the Leprosy, the Elephantiasis, and various other Detradations and Exulcerations of the Skin; as also for its singular Virtue in correcting the Acrimony of the Serum; and diluting, obunding, and sheathing up that of Cantharides. The Antients, also, ascribed uncommon Virtues to Whey, in removing Obstructions of the Vessels of the Viscera, and other Parts, from which arise terrible Disorders, not only in the Head, but, also, in the Region of the Abdomen, as we have already observed.

This Opinion did the Antients entertain of Whey, and its Usefulness. We shall now examine, whether it is founded on Truth and Experience: In order to which, we must inquire very accurately into the Elements and Principles of every Sort of Whey, from which, as from their Fountain, all its Qualities flow. Since, therefore, Whey secedes, and is obtained from the Milk, it will be proper to consider, in what Proportion this fluid and serous Part is united with, and associated to, the grosser and less dissoluble Parts, in the various Species of Milk commonly used. The Experiments I made for this Purpose were principally these following. I took a Pint of Cows Milk, put it into a Tin Vessel, with burning Coals under it, and, continuing the Evaporation, till it was dry, I obtained a yellow grumous Powder, which weigh'd an Ounce and five Drams. In like manner

manner I evaporated some new Goats Milk, which yielded the same Quantity of Powder, except half a Dram. But Asses and Womens Milk shewed a remarkable Difference, and yielded a far less Quantity of the solid Substance; for from a Pound of the former, after an entire Evaporation of the Humidity, I collected hardly an Ounce of white sweetish Powder; and from an equal Quantity of the latter, one Ounce of dry white Matter.

Then I made a farther Experiment upon the Powder of each Milk, and poured twelve Ounces of Rain water upon the Powder of the Cows Milk remaining after Exhalation, and weighing an Ounce and five Drams. Then I put it upon Coals, that it might boil, and the solid Dregs be again dissolved; after this I strained the Liquor through a Linen Cloth, and again dried the inspissated Matter, left in the Strainer, and still found an Ounce and three Drams and an half; an evident Proof, that one Dram and an half only were united with the Water, and passed with it through the Linen. Then I again evaporated the Water thus strained, which was of a pinguius and sweetish Taste, and of a whitish-yellow Colour; and, keeping it in continual Agitation, that it might not acquire an empyreumatic Taste and Smell, I procured a Dram of a whitish-yellow, earthy, and sweetish Mass from it. I made the same Experiments upon the Goats Milk, and observed in the remaining Matter hardly any Difference, either with regard to the Weight, or Taste, and Colour, only that in the Whey of the Goat's Milk the Taste was somewhat sweeter, and more of a pinguius Matter floated on its Surface, like Drops, as if a little Butter had been mixed with it. But a much wider Difference appeared in the Powder of the Asses Milk remaining after Evaporation; for, when I added the Ounce of this Powder to a Pint of pure Water, and by a gentle Fire brought it to an Ebullition and Dissolution, it was almost all dissolved, so that only one Dram remained in the Strainer, and about seven more were consumed by the Water, and passed the Linen; but the Liquor in which it was dissolved, and which was very sweet, after an entire Exhalation of the Humidity, yielded more than six Drams of very dry white Powder, like Sugar. Lastly, the Womens Milk, with the Powder obtained from it by Evaporation, and weighing one Ounce and one Dram, being dissolved and strained in the same manner, left three Drams of thick Sediment in the Strainer; but the Liquor which passed through, being again evaporated, yielded about six Drams of sweetish Powder, of a somewhat brownish Colour.

Now, if we accurately consider the Nature of Whey, it is evident, that it is a select Part of the Milk, freed from the grosser and caseous Substance; in which, by means of a large Quantity of aqueous Liquor, a most tender and sweet Salt is united with a mucilaginous, pinguius, and subtle Substance. And from these three highly salutary Elements are the most excellent medicinal Virtues of all Kinds of Whey to be derived. The principal Element of Whey, and what exceeds the rest in Quantity, is the fluid and humid Part. The gentle, sweet, and saline Ingredient is the next, which, like essential Salt extracted from the Herbs on which Animals feed, and elaborated by means of various Commixtures, or a sort of natural Chymistry, has a peculiar Faculty of stimulating the Excretories, and especially of promoting the Discharges by Stool and Urine; and, at the same time, blunts and tempers the bilious caustic Acrimony of the Humours. Hence it is, that the greater the Quantity of this sweet Matter, contained in the Milk, is, the more efficacious it is in purging the Body; as is very manifest in Asses Milk, since, when boiled to half the Quantity, the two great Humidity being separated, and the sweet Particles uniting, it exerts its purgative Quality much more powerfully and readily; a Method frequently used by *Hippocrates*. The third Principle of Whey is its mucilaginous, more subtle, and pinguius Part. This is principally to be esteemed for its Quality of moistening, softening, and relaxing the dry crisp Fibres, sheathing up the saline Acrimony of the Humours, and corrosive Juices, and of appeasing and removing the Disorders produced by these means.

These are the Elements of Whey, and these its Virtues; which, from what has been said, appear to be very serviceable and salutary in many Diseases. But, before we enter upon a particular Account of the various Distempers in which Whey is proper, we shall premise some few things necessary to be known, concerning the Preparation of Whey, especially for medicinal Uses, and the Manner of administering it. The most common Method, then, of separating the Serum from the caseous gross Substance is, to dissolve the Union, and cause a Secession by means of Heat, while the Milk is at Rest; or, as we have already observed, to accelerate and produce the same Effect by an Affusion of some acid Liquor. But, since Milk grown sour by Time, or a Separation of the Whey procured by an Addition of Acids, is greatly vitiated, loses that Sweetness, which is most agreeable to Nature, and most desired in Medicine, and rather assumes an acid Quality, which is never salutary and friendly to the Body, I attempted to find a commodious and more wholesome Way of preparing it, by which the Whey may be separated

whilst the Milk is yet fresh, the Sweetness entire, and the tender, pinguius, mucous Substance safe.

I imagined the best Method of doing this, as I have already observed, was to evaporate new Milk, and then pour upon the remaining yellow grumous Powder as much pure, light, and wholesome Water as had been carried off from the Milk into the Air in the Form of Exhalations; then to boil this Mixture for some time, that the sweet, saline, pinguius, and tender Part might be absorbed by the Water, and the Liquor, when freed from the gross earthy Substance by straining, kept for Use. And certainly Water of Milk, thus prepared by Decoction, or artificial Whey, has many excellent Qualities above the common Whey, and, from yellow, becomes of a white Colour, has a most agreeable sweet Taste, and is, at the same time, impregnated with a pinguius, oleous, and highly liquid Substance, which may be taken either hot or cold, without any Nausea, and keeps longer without losing either its Texture or Taste.

As for the Method of giving it, let us first examine the Antients, our best Guides in this Affair, both with respect to the Measure and Time. From their Writings it will evidently appear, that they recommended the Use of Whey, not in a small, but sufficiently large Quantity: Its Use was, also, to be persisted in for some time; with this Caution and Difference, however, that, if they intended only to cleanse the Primæ Viæ from Sordes, they prescribed it in a smaller Quantity, and for a few Days; but if they prescribed it in inveterate Disorders, and such as had taken deeper Root in the inmost Recesses of the Viscera, they used it for a longer Time, and in a larger Quantity. *Galen* has laid down these Rules, with respect to the Use of Whey: "A Quantity of Whey, says he, proportioned to the Strength of the Patient, should be prescribed; and, tho' no great Error would be committed by exhibiting too much, yet let a certain Measure, about five Heminae, for Instance, be given." Now an Hemina, according to the Antients, was equal to twelve Ounces.

The Opinion of *Hippocrates* appears from *Lib. 7. Sect. 1. Epid.* where he tells us, that in an hepatic Flux, where there were copious Stools, resembling the Washings of Flesh, proceeding from a Disorder of the Bile, he prescribed Asses Milk, (and certainly Whey must be better) to the Quantity of nine Attic Corybe; not, indeed, at one, but several times, so that the Whole was taken within the Space of two Days. But when he used it as a Purgative, according to *Martianus's* Remark in *Comment. in Aphor. 64. Sect. 5.* he ordered it in a larger Quantity, and sometimes went as far as a Gallon. And *Valesius, Comm. in Epid. Lib. 7.* informs us, that "It was usual with the Antients to give Asses Milk to purge the Bile, as appears from *Lib. 2. de Natura Viscus in Acutis*; which Practice, says he, I have followed with great Advantage, obliging my Patients to drink above two Quarts of this Whey, or this Milk, which is very serous."

As for the Time for which this Medicine is to be persisted in, we must again have recourse to the Antients: And, if the Disorder is inveterate and obstinate, *Hippocrates* order'd Asses-milk or Whey, principally that of Goats, to be drank for several Days; as appears from *Lib. 7. Epidem. Riverius* and *Sylvaticus* affirm, that Whey may be used for a Month, and longer; for these Physicians used Asses-milk and Whey very successfully, in most violent Disorders, for twelve, twenty, and even forty Days; and, for that Reason, bestow very large Encomiums upon them. Further, we read in *Hippocrates, Lib. de internis Affectionibus*, that he, in a Tabes Dorsalis, prescribed Milk for forty-five Days, mixed with a third Part of Hydromel. Nor indeed can it produce the desired Effect, in obstinate and inveterate Diseases, where the Viscera are affected and obstructed; unless, like the Mineral Waters, it is taken in a large Dose, and for several Days.

For my own Part, I have always observed this Rule, to proportion the Quantity of Whey, to be taken at one Dose, to the Strength of the Patient; giving to those who are tender, or subject to a Nausea, only one Pint; but to those who are stronger, and of a less delicate Constitution, two Pints; and have sometimes order'd them to drink it only in the Morning; and at other times in the Afternoon too, but in a smaller Quantity than in the Morning. As to the Time, during which its Use was to be persisted in, I was, likewise, governed by the greater or less Obstinacy of the Disorder; and some I have known cured in two, but others hardly in four or six Weeks. Lastly, with *Martianus, Comm. in Hippocr. Aphor. p. 163.* I commend the giving Asses-milk, or Whey, at different times; not altogether, and at once; both because, if the Patient is weak, and his Stomach relaxed, he cannot bear so large a Quantity, and because the Whey itself, when taken at several times, renders the Body soluble, with much greater Success and Expedition.

We now come to consider, to what Purposes, and what Diseases, Whey is adapted. Great Regard, then, is due to the Practice of *Hippocrates*, who used Whey and Asses-milk after strong Purges, such as Hellebore and Elaterium, in order to expel the

mischievous

mischievous and deleterious Quality of them: For, in *Lib. de internis Affectionibus*, after the Exhibition of Hellebore, he says, he prescribed two Gallons of boiled Goats-whey; and, in the same Part, he advises, after Vomiting with black Hellebore, and purging with Juice of Scammony, to give Cows-milk, and its Whey, and boiled Asses-milk, for a time. Further, *Lib. 2. de Morbis Mulierum*, he judiciously declares, that, after Hellebore, boiled Whey, with a little Salt, ought to be drank for several Days, ordering, if Whey cannot be had, to boil Asses-milk, and exhibit it for four Days. I suppose the Reason why drinking Whey of Goats or Asses-milk, after violent Purging by strong Cathartics, is salutary, must be this: Strong Purges perform their Office by a caustic and almost virulent Salt, corroding the tender Coats of the Intestines; and excite copious Stools, with Gripes, which from an excessive Diminution of the Humidity in the Intestines, and a violent Contraction and Stricture of their Coats, are followed by an Hardness, Tension, and Constriction of the Abdomen: But Whey, or diluted Milk, taken after these, restore the Juice and Humidity to the Intestines, mollify and relax the tense and crisped Fibres, blunt the Spicula of the drastic Purgative, which still adhere to the highly sensible Coats of the Intestines, and, by an easy, gentle Stimulus, render the Body soluble.

I can, also, affirm from Experience, that, for preventing an approaching Hypercatharsis, or curing one when present, whether excited by a Cathartic or Emetic, I never found a more certain or immediate Remedy than Cows-milk, which is a most powerful Remedy against the mischievous Virulence of Arsenic. And I am convinced, from many Instances, that violent Vomiting, from too large a Dose of any strong Emetic, such as Powder of Algarot, or the Pulvis Monchii, unskillfully exhibited, have been checked and removed by taking warm Milk, or Whey. Whence I rationally conclude, that we can hardly find a more convenient Vehicle, to give an Emetic or Cathartic in, than Whey rightly prepared; because, besides its useful Quality of rendering the viscid Humours moveable, and fit for Evacuation, it does, at the same time, greatly temperate and correct the peculiar Virulence of such Purgatives.

Besides, I have already observed, that Whey, by reason of its native sweet Salt, stimulates and irritates the Organs subservient to Excretion: But this is principally to be understood with respect to the Discharge of the Excrements. Whey, in consequence of its mild and gentle Operation, is most commodious and beneficial, in Cases where the Strength of the Patient, and other Circumstances, prohibit violent Purging; and, especially, in Distempers where Purging is dangerous, and in Fevers, and almost all preternatural Heats. The Antients indeed generally prescribed Asses-milk in these Cases; and *Hippocrates* recommends it in a Quotidian Fever, arising from Bile; and in the Fever termed *Febris interficiens*, *Lib. 2. de Morbis*; and in a burning Fever. And in an Erysipelas, *Lib. 2. de Morbis*, he advises to purge the Body with Milk. But, for want of Asses-milk, I have found, from repeated Experience, that Whey of Goats-milk, adding a due Quantity of Manna, which partakes very much of the same Nature with the essential sweet Salt of Milk, may be substituted in its room, in the same Disorders and Cases, and, particularly, that it is given with good Success in an hectic Heat.

Tho' Whey, especially made of Asses-milk, drank plentifully, is an effectual Laxative; yet it is often expedient, when the Stomach cannot bear a large Quantity of it, to exhibit it in a smaller Dose, and to increase and augment its purgative Quality, by some other gentle Laxative. For this Purpose, Manna, solutive Syrup of Succory with Rhubarb, Cream of Tartar, or the Terra foliata Tartari, are very commodious; a Decoction of it, also, with Tamarinds and Root of Polypody, is very proper; adding afterwards Sal polychrestum, or Arcanum duplicatum, Manna, or even Root of Elder, which, when exhibited in a large Dose, renders the Body soluble. I have often used laxative Whey, thus prepared, with unspeakable Success; particularly where Nature was infirm, as in old Men and Infants, or those debilitated by Sicknels, or lately recover'd, or even when, in exanthematous Fevers, Small-pox, or Measles, a long Costiveness render'd the State of the Patient dangerous: Besides, when in Disorders of the Breast, such as a Chin-cough, a Dry-cough, or one of the moist or catarrhal Kind, or a slow Fever, it is expedient to render the Body soluble; this may be done by dissolving two or three Ounces of Manna, in a Pint of Whey; adding a Dram of Cream of Tartar, or the Terra foliata Tartari, and mixing two or three Drops of the Oil of Cedar, to make it palatable: This Draught should be taken at three different times. Flowers of Egyptian Thorn, and Peaches infused in warm Goats-whey Milk, augment its laxative Quality; especially with the Addition of some digestive Salt, or Manna.

It is necessary to prescribe a laxative Medicine in Spring or Summer, to cleanse the Primæ Viæ from Fæces, or remove a Cacochymy, certainly a Pint of this Whey, so strengthen'd with Laxatives, may be advantageously taken every Day, for several Weeks: And this Method, used in the Springs, is much safer, and more salutary, for weak, extenuated, and more sensible Pa-

tients, especially those of the younger Sort, than all the common Nodules, Infusions, or medicated Wines, intended to purge the Patient, and purify his Blood. It is, also, expedient, in the Beginning of a Dysentery, gently to remove the sharp, caustic Humours, which irritate, corrode, and excite Inflammations in the nervous Coats of the Intestines; and this Intention is excellently answer'd by Asses-milk: But, if this should disappoint you, Whey of Goats-milk, with some Grains of Extract of Rhubarb, and an Ounce, or an Ounce and an half of Manna, will produce the desired Effect. And indeed the Use of Whey in a Dysentery is of a very old Date: Thus *Hippocrates*, in *Lib. Epid. 6.* when *Adrianus*, and the Son of *Ceneus*, had a Pain all round the Belly, and, by Stool, discharg'd a large Quantity of somewhat bloody Matter, for twenty Days, prescribed Goats-whey and Asses-milk boiled. For *Valesius* rightly judges this Disorder to have been dysenteric; and, in his Comment upon this Passage, recommends, in an autumnal Dysentery, Whey, heated by ignited Flint; and says, that, after a Patient had drank Whey and Milk, his bilious bloody Stools, attended with a violent Pain of the Belly, become abundantly more moderate.

If at any time drastic Medicines are requisite to carry off a large Quantity of Water, in an Anasarca, or Leucophlegmatia, such as Extract of Esula, or black Hellebore, these are not only very securely, but very commodiously and advantageously mixed, and drank with Asses-milk or Whey, taking half a Dram of the Purgative to a Pint of Whey, and drinking the Mixture at different times. In like manner, since it is very salutary, before taking the Mineral Waters, and even after the Cure is completed, to free and cleanse the Primæ Viæ from accumulated Fæces, and retained Water, I have found nothing in my Practice safer and better than Whey, in which, at least, three Ounces of Manna, with an Ounce and an half of Cream of Tartar, have been dissolved: For by this I have frequently observed, that six or eight Stools have been procur'd without any Trouble, and a surprising Quantity of Water discharged. Besides, when, in consequence of a Redundance and Induration of the Fæces, it is necessary to render the Body soluble, nothing is better, or more efficacious, than to take Whey with Manna, adding a sufficient Quantity of Oil of sweet Almonds, and to inject the same, by way of Clyster, to lubricate the Intestines, and soften the Fæces.

But, besides these inestimable Qualities of Whey, for purging the Primæ Viæ, it has still other valuable Virtues, which it exerts beyond the Primæ Viæ, and displays in those Diseases which increase slowly, draw their Origin from the affected Viscera, and continue for a long time; among which the principal is the Scurvy, or a scorbutic Cachexy, the Source of so many Disorders, and dangerous Symptoms. If we read with any Attention the Works of those who have wrote professedly on the Scurvy, such as *Eugalenus*, *Brunnerus*, *Brucerus*, *Roussens*, *Wierus*, *Albertus*, *Martinus*, and *Drabizius*, they almost all candidly confess, that they have found more Benefit from a Milk-diet alone, or from a Decoction of Whey with the antiscorbutic Herbs, taken for a considerable time, even in the worst Symptoms attending the Scurvy, such as acute Pains, Gripings of the Belly, Vomings, Atrophy, and slow Fevers, than from any other Medicines whatsoever; and that those who were gradually becoming weaker by this obstinate Disorder, gather'd more Strength from such a Regimen, than from the best Corroboratives, and artificial Analeptics. It was the Practice of these experienced Physicians, to make a Decoction of the antiscorbutic Herbs, as Scurvy-grass, Brooklime, Water-creller, Leaves of Wormwood, Sorrel, Fumitory, Spleenwort, Dodder or Thyme, Betony, Cardus benedictus, the lesser Centaury, and Marsh-mallows, with Milk, and to order a Pint or more of this Decoction to be drank warm every Morning, by those afflicted with the Scurvy; and, by this simple Remedy, they overcame the Obstinacy of the Distemper, and subdued all its formidable Symptoms.

The most celebrated Writers extol Whey, as highly efficacious in the Cure of scorbutic Disorders. Thus *Joh. Wierus*, in *Tracl. de Scorbuto*, passes this just Encomium upon it: "That the Patients, says he, with great Success, drink the Milk boil'd with antiscorbutic Herbs, and then expressed, is rather to be attributed to the Nature of the Whey than the Milk; since the caseous Portion, and that which generates the Butter, remains coagulated in the Sierce; but the Whey, which passes through, and consists of thin Parts, deteiges, opens, promotes a Discharge of Urine, and is remarkably conducive to the Cure of scorbutic Disorders, as *Aetius* and *Galen* affirm." Besides, *Matth. Martinus*, *Lib. de Scorbutico*, speaks thus of the Use of Whey in the Scurvy: "Goats-milk, drank through the whole Course of the Distemper, is wonderfully beneficial to the Patient, as it not only renders the Body moderately soluble, but is, also, easy of Digestion, and speedily removes the want of a due Tone in the Intestines by its astringent Quality, and is greatly adapted to the Recovery of the Strength: However, that it may not inflate the Hypochondria, and coagulate in weak Stomachs, a small Quantity of Water, Salt, or Sugar, must be added." But this Misfortune is scarce to be dreaded, if, in the room of Goats-milk, the Whey of it, or Asses-

Asses-milk, is substituted; especially since *Bald. Ronsseus*, in his *Treatise de Scorbuto*, advises the above-mention'd antiscorbutic Herbs to be boiled, not in Milk, but Whey. Lastly, *Moellenbroeck*, in *Lub. de Arthritide vaga & scorbutica*, asserts the great Virtue of Goats-whey, in the Scurvy, affirming, "That Whey, especially of Goats-milk, is very serviceable in that Disorder." And the Authors of the *Schola Salernitana* inform us, "That Whey is of an inciding, cleansing, and penetrating Quality, by reason of its aqueous Humidity; dissolves those Things which are saline, by reason of its Nitre; detaches what adheres to the Sides of the Vessels; renders the Body gently soluble, without any Corrosion; and refrigerates, by reason of its latent volatile Alkali: Hence the Boors of *Holland* and *Friseland* preserve and free themselves from an epidemical Scurvy, by the Use of Whey. But it is render'd more salutary, if antiscorbutic Herbs are infused or boiled in it."

And, certainly, in the most obstinate of all chronical Disorders, the Scurvy, there is not a more certain and efficacious Remedy than sweet Whey of Asses or Goats-milk, prepared in the manner already directed; since the Origin of this obstinate Distemper is the utmost Impurity of the vital Humours, arising from the saline, sulphureous, excrementitious Fæces retained in the Body, for want of due Excretions, and more corrupted by the hot intestine Motion, and the various Combination of the Parts with each other, which, by lacerating and corroding the interior and exterior solid Parts, of more acute Sensation, produce not only violent Pains, but, also, Spots and Ulcerations of various Kinds, on the Surface of the Body. For the Removal of these terrible Disorders, there is certainly no more proper and convenient Remedy than Whey, which dilutes and temperates the saline and acid Humours, opens the small obstructed Vessels of the Emunctories; by cutting the viscid Humours, frees the Viscera from the Stagnation of Serum and Blood; and gently helps and promotes Excretion by Stool, Urine, and Perspiration, without any Prejudice and Disturbance; and is, besides, salutary, and agreeable to the nervous Parts.

But from what has been already said, 'tis obvious, that all these excellent Qualities are in Whey rightly prepared, and may safely be expected from it. For this Reason the Antients, *Hippocrates*, *Galen*, *Dioscorides*, *Pliny*, *Aetius*, and *Mesue*, have prudently recommended the Use of it in Distempers, which derive their Origin from an Impurity of the Humours. But we must observe, that in such long and obstinate Disorders, the drinking of Whey, as is usual in taking the medicinal Waters, should be continued for a Month, and longer, in a convenient Quantity. Besides, though in bilious and warm Constitutions the Whey alone is sufficient, yet if the Humours are thick, and the Habit gross and cold, it is better to boil in it a moderate Quantity of the bitter Herbs, called Antiscorbutic, which, from their volatile Oil, have a Bitterness very salutary in these Disorders.

Whey is no less beneficial in those Diseases, which are accompanied with spasmodic Motions and Strictures of the nervous Parts, and pervert the whole Oeconomy of the vital Motions, both of the secretory and excretory Kind; among which the principal in our Climate is the Hypochondriacal Disorder, in Women termed Hysterical, which is not only very frequent in our Days, but, also, very obstinate, by reason of the preposterous Method commonly used in curing it.

This Disorder affects the nervous and membranous Canal of the Stomach and Intestines, by continual Spasms and Flatulences, by which the whole nervous System is drawn into Consent, so that it is agitated by the same Commotions. Hence the Course of the Blood and Humours becomes unequal, as they are conveyed with Violence from the external to the internal Parts, and especially to the Head and Breast, and there excite very terrible Symptoms. But the principal Cause of this obstinate Disorder is to be sought for in the extreme Weakness of the nervous System, brought on partly by hereditary Disposition, and partly by those things which impair the Strength, and are unfriendly to the Texture and Motion of the nervous Parts. If to these is added a large Quantity of thick Blood, either for want of Motion and Exercise of the Body, or from an irregular Diet, this Blood, stagnating in the intricate Windings of the Intestines from an Obstruction of a free Passage through the Liver, greatly augments and increases the Flatulences and Spasms. And what is still more, as this Disorder gets firm Possession of the Viscera situated in the Region of the Hypochondria, and affects the whole System of the nervous Parts, it spreads its Mischief wider, and injures other Parts of the Body; so that the Head is principally affected by it, and Vertigos, Epilepsies, Palties, Melancholy, and Madness are produced; but, by the Spasms affecting the internal Parts of the Body, the wholesome Business of natural Excretion is wonderfully disturbed and perverted, by which not only the Discharge of Blood by the Veins of the Anus and Uterus, but, also, the Elimination of the Sordes by Stool, Urine, and Perspiration, is either absolutely suppressed, carried on irregularly, or, sometimes, offends by Excess.

For effectually vanquishing and subduing these dangerous Disorders, there is not, in my Opinion, a more useful, secure, and

certain Remedy, than Whey, or Asses Milk, or Goats Milk, mixed with the Mineral Waters; especially if the Cure is undertaken at a due time, a due Quantity exhibited, and with a proper Regimen, such as is usual in drinking the Mineral Waters. So that I can with Justice observe, that more may be performed, in these obstinate Disorders, by this Method of Cure, than by the Mineral Waters alone. For a spasmodic Disease of this Kind requires a Remedy which is moderate and agreeable to Nature, which renders the tenacious viscid Humours fluid, opens the small obstructed Vessels, temperates the saline acid Humours, and promotes Excretions of all sorts by a gentle Stimulus; all which Properties are found in sweet Whey, inasmuch that it excels all others in this Case, if properly administer'd; nor should Patients, though it does not produce an immediate Alteration for the better, abstain from the Use of it, but let other congruous Remedies, according to the Diversity of Constitutions and Symptoms, be mixed with it, or exhibited at proper Intervals.

The celebrated *Italian* Physician, *Benedictus Sylvaticus*, thoroughly perceived these extraordinary Properties of Whey, who expressly affirms, that he used Whey, and Asses Milk, in the most violent and obstinate Disorders. Nor will it be improper here to mention in what Disorders, and what Method, he made use of it. He, therefore, *Consil. 58. Cent. 1.* in melancholic and maniac Disorders, recommends Whey of Goats Milk, with Syrup of Polypody, and Seeds of Apples, reduced to an Emulsion. And in *Consil. 6.* in melancholic hypochondriac Affections, he advises taking two Quarts of the same Whey for fifteen Days. Besides, in *Consil. 65.* he lays, Goats Whey, very well depurated, and in which Leaves of Wormwood have been infused, should be prescribed for several Days. And, *Consil. 73.* in hypochondriac Melancholy, he orders to drop Chalybs potabilis, with Oil of Citron, into it, and so drink it. Besides, he says, that, in a Palsy of half the Body, Whey of Goats Milk, made more purgative with Cream of Tartar and Rhubarb, and more diuretic with Cetrach, white Maidenhair, Roots of Fennel, and Parsley, adding some Drops of Spirit of Vitriol, is highly beneficial. He cur'd, likewise, an epileptic Syncope with Goats Whey: In this manner he first exhibited the best depurated Whey with Juice of Lemons; but, on the fourth Day, rendered it purgative, by infusing one Dram of Rhubarb, with a proper Quantity of Senaleaves, in four Ounces of it; after which, three Pints of Whey were to be drank: And, on the three intermediate Days, he ordered one Pint of the same Whey, having first steeped in it Flowers of Piony, Goats-rue, Baum, and Citron-peel, to be drank. He is as lavish in his Encomiums on Whey, in the Hysterical Passion, *Cent. 2. Consil. 68.* and in the *Morbus Niger* of *Hippocrates*. *Consil. 77.* in a Vomiting of Blood, *Consil. 82.* and in a Spitting of Blood, *Consil. 34.* and *35.* The same great Author says, that he cured a Diarrhoea and Teneismus, by solutive Syrup of Roses, and Julap of Tamarinds, ordering the Patient to drink after them some distilled Goats Whey. He, likewise, prevented the Progress of a beginning cancerous Tumor in the Breast (*Cent. 4. Consil. 92.*) by giving three Ounces of Manna, dissolved in Goats Whey.

I myself can boldly assert, that I have found an inexpressible Benefit from Whey, in many Distempers: As a Confirmation of this, I shall subjoin some Observations, and remarkable Cures, which occurred to me in one Month's time. A Man about Thirty, not very robust, had taken some purging Pills from a Student in Physic, which operated so violently, that though he discharged half of them, at the time of taking, by a Vomit, yet he had, for several Days after, so continual a Flux, that he had an hundred Stools; by which means his Strength was entirely lost, his Appetite impair'd, and his Sleep was restless, and so short, as to be hardly any at all: To these Symptoms was added an erratic intermitting Fever, degenerating at length into one of the slow Kind, which still more effectually destroy'd his Strength. In this desperate Condition he earnestly apply'd to me for Assistance, and, waiting on him, I found he had kept his Bed for several Weeks, and was wasted by nocturnal colliquative Sweats, and a slow Fever, of which a continual quick and weak Pulse was an Indication. I advis'd him to lay aside all Medicines, and drink several times a Day a Quart of Goats Whey, prepared in the manner I directed him, and, at the same time, to take twelve Drops of the Anodyne Liquor, and often drink thin Water-gruel; which Measures being continued for fourteen Days, his Sleep returned, his Appetite was restored, his Strength so effectually recovered, that he was rendered capable of minding his Business.

There are still other memorable Instances of the Efficacy of Whey: For a Student of Law, being disordered by the baneful Influence of Anger and Sorrow, was seized with a Nausea, and Inclination to vomit. In order to cure this, he sent a Friend, for a Vomit, to an Apothecary; but after taking it, he not only vomited often, but also fell into the utmost Decay of Strength, accompanied with a burning Heat of the Stomach, perpetual Restlessness, Thirst, and a Loathing of Food. I, being sent for, and fearing an Inflammation of the Stomach, ordered nothing but Whey, prepared in my manner, with some Ounces of an Emulsion of the four cold Seeds, to be drank, both Night and Day, at proper

proper Intervals, by which the burning Heat was extinguished, his Pulse became regular, and his Sleep sound and natural; so that there were great Hopes of his Recovery.

A Girl, of about three Years old, and of a tender Constitution, as a Preservative against the Small-pox, which, at that time, was epidemical, by the Advice of a Physician, took a Purge of Jalap and Mercurius dulcis; which, indeed, gave her only two or three Stools, but her Apperite was entirely lost: She passed restless Nights, with Tossings, and was very much afflicted with Thirst, an intense and a quick Pulse. I attended her, and prescribed Whey, prepared after my Method; by the Use of which, the Symptoms successively ceased, and she recovered. Since it is evident, therefore, that Whey has an happy Effect in many Diseases, nothing now remains, but to recommend this most noble Medicine to other Physicians; and heartily wish, that it may restore Numbers to Health. *Frederic Hoffman.*

The common Lac Virginalis is made by dissolving a small Quantity of Sugar of Lead in a large Quantity of Water.

Another Sort of Lac Virginalis is thus made:

Take of Roch-alum, four Ounces; Spring-water, two Pounds: Boil away a third Part; then take of Litharge, half a Pound; Vinegar, a Pound and an half; and boil to a Pound: Strain both, and shake them together, till they incorporate, and look white.

This is intended for a Cosmetic, by driving in Pimples, and checking such Eruptions as deform the Skin, by its cooling restraining Properties. But such things are dangerous, because they hinder cutaneous Transpiration, and thereby occasion many Disorders, not easily again removed.

LAC LUNÆ. See MARGA CANDIDA.

LACAPHTHON, *λάκκφθον*. This is mentioned by *Paulus Ægineta*, L. 7. C. 22. as an Ingredient in the Composition of the great *Cypbi*, where it is explain'd the Bark of a certain Tree. It is supposed to be the *Nascaphthum*, or *Narcaphthum*, a sort of Aromatic brought from *India*. *Castellus.*

LACCA. See JUJUBA INDICA.

LACCOPEDON, *λακκοπέδον*. The lax Part of the *Scrotum*, call'd by the *Athenians*, *λακκοχέας*. *Ruffus Ephesius*, L. 1. C. 12.

LACERTUS. Offic. Schw. 147. *Lacertus vulgaris*. Raii Synop. A. 264. Aldrov. Quad. Ovip. 627. *Jonf. de Quad.* 133. *Gesn. de Quad. Ovip.* 32. *Charlt. Exer.* 28. *Lacertus terrestris*. *Schrod.* 5. 342. THE LIZARD, OR EFT.

It lives in Caverns, and Ruins, and desolate Places. The large green Lizard is esteemed above the rest; but, this being rarely found in these Countries, what we say is to be understood of the common Lizard.

Being cut in Pieces, or bruised, especially the Head, and applied with Salt, it extracts Splinters, Pieces of Glasses, and the like, out of the Body. The Flesh, or the Ashes of it, burnt, made into a Litus, with Fat, cure an Alopecia: It is, also, good against the Sting of a Scorpion, and the Bite of other venomous Creatures.

LACERTA VIRIDIS. Ind. Med. 64. Raii Synop. A. 264. Aldrov. de Quad. Ovip. 633. *Gesn. de Quad. Ovip.* 40. *Charlt. Exer.* 28. *Jonf. de Quad.* 134. *Lacertus Hibernicus*. *Mer. Pin.* 169. THE GREEN LIZARD.

It is larger than the common Lizard, and found in *Ireland*; the Animal itself is used, and agrees in Virtues with the preceding.

LACERTUS AQUATILIS. See SALAMANDRA AQUATICA.

LACHLACHATUM. The Name of a Stomachic Medicine, described by *Avicenna*.

LACHRYMA. A Tear. For the Presages to be drawn from Tears, see OCLUS.

The Juices of some Plants, which transude in the Form of a Tear, are, also, call'd *Lachryma*.

LACHRYMA JOBI.

The Characters are;

It has the Appearance of the *Arundo*; the Flowers are apetalous, furnished with a Calyx, Male, and form'd into a Spike in one Part of the Plant; the Ovary is seated in another Part, and furnished with a long Tube, and two Horns, and becomes a stony Shell, containing one Seed. *Boerhaave*, *Index alter*, *Part* 2. p. 166.

Boerhaave mentions but one Species of this Plant; which is, *Lachryma Jobi*. Offic. Ger. 82. *Emac.* 88. *Park. Theat.* 430. *Boerb. Ind. A.* 2. 166. *Tourne. Inst.* 532. *Lachryma Jobi multis*, *sive Milium Arundinaceum*. J. B. 2. 449. *Raii Hist.* 2. 1252. *Lithospermum Arundinaceum forte Dioscoridis & Plin.* C. B. P. 258. JOB'S TEARS.

It is cultivated in Gardens, and the Seeds are used. Dale. It is called *Lachryma Jobi*, because the Seeds are like Tears: These Seeds are detergent and aperitive, and therefore good for the Stone in the Kidneys and Bladder. *Hist. Plant. ascript.* *Boerhaave.*

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It grows spontaneously, as *Parkinson* says, in *Crete*, *Rhodes*, *Syria*, and other Eastern Countries, where the Inhabitants dip the ripe Seeds in boiling Water, and then string them up like Beads, by which they say their Prayers. *Raii H. P.*

LACHRYMALE PUNCTUM. See FISTULA LACHRYMALIS.

LACHRYMALIS Ductus. See FISTULA LACHRYMALIS.

LACINIÆ, in Botany, imports the Incisures, or Jags, on the Borders of Leaves, or Flowers. Hence they are said to be lacinated.

LACONICUM, *λακωνικόν*. A Stove, Bagnio, or Sweating-room.

LACTARIA. Aliments prepar'd of Milk, called, also, *Lactinia*.

LACTATIO. Lactation, or giving Suck.

Morton says, that if, by reason of the want of an Appetite, there is more nutritious Juice suck'd out of the Blood thro' the Breasts for a long time, than is supplied to the Mass of Blood by the new Chyle from the lacteal Vessels, it is impossible but an Impoverishment of the Blood should follow, and thereupon an Atrophy of the Body, (seeing it is deprived of due Nourishment) and consequently an hecical Heat in the Blood, Spirits, and Habit of Body, which is a kind of original-Consumption, proceeding from the Subtraction of the nutritious Juice.

Yet I must ingenuously declare, says he, that I have sometimes observed a consumptive Disposition cured by giving Suck; and that not only in my own Wife, but in many other Women: As for Example, *Mrs. Wilson*, one of my Neighbours, who, at other times, is consumptive, and goes up and down like a Ghost, always grows fat all the time she gives Suck. *Mrs. Thompson*, upon *Snow-hill*, manifestly fell into a fatal Consumption in the Habit of her Body, and upon that into a Consumption of her Lungs, from the sudden Weaning of her Child. But, at the same time, it is as obvious, that all such Nurses as grow fat in this manner, from giving of Suck, have a good Stomach; that, during the time of their giving Suck, their Appetite is very much increased, and from thence it is very easy to account for this Appearance: For Instance, that the Appetite being increased by the continual Drawing off of the nutritious Juice by the Child's Sucking, there is room made for a greater Quantity of new and oily Chyle, by which the Blood is every Day enriched, which conduces more to the Cure of a consumptive Disposition, than all the Medicines in the World. But if the Appetite, during the time of giving Suck, grows languid, and thereupon, by reason of the little Food which is taken in, a less Quantity of new Juice is supplied to the Blood, than is carried off by the Breasts, an hecical Disposition in the Blood and Spirits must inevitably follow; and an Atrophy or Consumption in the Habit of the Body.

The first thing that presages the Approach of this Consumption, is a want of Appetite; and therefore I give this Caution to all Nurses, that, when they find their Appetite to abate for some time, they forthwith wean their Children. The second Sign is a Weakness and Faintness of the Spirits, proceeding from a dispirited and impoverished State of the Blood. A third Sign is an hypochondriacal Oppression, and frequent hysteric Fits and Choakings. Which Appearance does not proceed from the Sucking of the Child drawing the Vapours upward, (as is commonly thought) but a too plentiful Subtraction, and too great an Expence, of the nutritious Juice: By which means the Spirits themselves become, in the same manner as the Blood, poor and windy, by reason they have lost their natural and original Vigour; whereupon there follows an Obstruction, and this inordinate and ungovernable Motion of the Spirits in the Nerves and Fibres of the Muscles, and upon that, Oppressions, and suffocative and convulsive Contractions of some Parts, commonly called Hysteric.

These presaging Symptoms, in the Progress of the Distemper, have an Atrophy, and an hecical Heat, following them (which is not strange); and often terminate in a Consumption of the Lungs, together with a Cough, Shortness of Breath, and the like. Nevertheless this Consumption is originally in the Habit of the Body, and that from too great an Expence of the nutritious Juice. This Consumption, when it once comes to the Degree of a Marasmus, and to terminate in a Consumption of the Lungs, proves fatal and incurable. But, in the Beginning, it is easily cured; first, by the speedy Weaning of the Child, whereby the Cause, which disposed the Person to it, is removed. Secondly, By giving the Patient plentiful Nourishment of such Food as affords a good Juice. Thirdly, By exciting and restoring the Appetite by Cheerfulness of Mind, the Enjoyment of a benign and open Air, and by moderate Exercise. And, lastly, if her hecical Disposition requires it, the sick Woman must be put upon the Use of a Milk-diet, or of the Chalybeate Waters. But let her abstain from Wine, and all Evacuations but what are necessary.

Morton. Phthisiologia.

LACTEA VASA. The Lacteal Vessels. See CHYLUS.

LACTEA FEBRIS. A Milk Fever, frequent after Delivery. See PUERPERIUM.

LACTICA. The *Arabian* Name for that Species of Fever, which the *Greeks* called *TYPHOS*, or *TYPHODES*.

LACTICINIA. Aliments prepared of Milk; which are esteemed very improper, whenever the Powers of Digestion are weak: For, tho' Milk, when fresh drawn from the Animals which afford it, is easily digested, and, in many Cases, of excellent Virtues; yet, when boiled, as it generally is in preparing various Sorts of Aliments from it, it acquires a very different Nature, and lays a Foundation for many Disorders.

LACTIFERUS. Lactiferous Plants are such as abound with a milky Juice, such as the *Tithymalus*, *Sonchus*, and *Lactuca*.

LACTUCA.

The Characters are;

The Root is almost constantly fibrous, and generally annual; the Leaves are smooth, and placed alternately; the Branches terminate in a sort of an Umbella; the Calyx is slender, oblong, and squamous; the Seeds are oblong, flattish, and acuminate at both Ends. *Boerhaave*, *Index alter*, *Pars* 1. p. 81.

Boerhaave mentions fifty-five Species of this Plant, none of which have any particular medicinal Virtues attributed to them, that I know of, except the 1st, 4th, 5th, 6th, 9th, and 12th, all which are thus distinguished:

The first is the

Lactuca, *sylvestris*; *Costa spinosa*. C. B. P. 123. *Raii Hist.* 1. 223. *Synop.* 3. 69. *Tourn. Inst.* 473. *Boerb. Ind. A.* 81. *Lactuca sylvestris laciniata*. Park. *Theat.* 813. *Lactuca sylvestris foliis dissectis*. Ger. *Emac.* 309. *Lactuca sylvestris, seu Endivia multis dicta folio laciniato, dorso spinoso*. J. B. 2. 1003. **JAGGED-LEAVED WILD LETTUCE.**

It grows in Hedges, and flowers in *June*; the Herb and Seeds are in Use. *Dale*. The Wild-lettuce resembles the Garden-lettuce, according to *Dioscorides*; only has a longer Stalk, slenderer and rougher Leaves, and a bitter Taste. Whether what the Antients have told us of the Virtues of the Wild-lettuce in preventing Venereal Dreams, and extinguishing amorous Desires, no less effectually than the Garden Kind, belongs, in reality, to the Plant above described, I am not, says *Ray*, entirely convinc'd. That it is narcotic and soporiferous, and on that account resembling the Poppy in Qualities, as we are inform'd by *Pliny* and *Dioscorides*, is abundantly evident from its strong and rank Smell of Opium; but all Opiates in general seem rather to irritate than extinguish a Venereal Appetite, at least, if moderately taken, in the same manner as Wine, and other generous Liquors, with which, in some measure, they agree in Virtues. Thus *Ray*, to which he adds, that Dr. *Lifter*, out of Curiosity, receiving the Fume of the lighted Herb up his Nostrils, was suddenly seized with a vertiginous Disorder, after the same manner as those who first learn to smoke Tobacco. *Raii Hist. Plant.*

The fourth is the

Lactuca; *sylvestris*; *odore viroso*. C. B. P. 123. *Tourn. Inst.* 473. *Boerb. Ind. A.* 81. *Lactuca Sylvestris*. Offic. *Lactuca sylvestris major odore Opii*. Ger. *Emac.* 309. *Raii Hist.* 1. 221. *Synop.* 69. *Lactuca sylvestris lato folio, succo viroso*. J. B. 2. 1002. *Lactuca sylvestris Endivie foliis, odore viroso*. Park. 813. **WILD-LETTUCE.**

It grows in Hedges, and flowers in *June*; the Herb and Seeds are used, and are effectual, according to *Dioscorides*, for mitigating of Pain.

The fifth is the

Lactuca, *sylvestris*; *folio ad latera spinoso*.

The sixth is the

Lactuca; *fativa*. C. B. 122. *Raii Hist.* 1. 200. *Hist. Oxon.* 3. 57. Ger. 239. *Emac.* 306. *Tourn. Inst.* 473. *Boerb. Ind. A.* 82. *Lactuca*. Offic. *Lactuca fativa vulgaris non capitata*. J. B. 2. 997. *Lactuca Hyemalis*. Park. *Parad.* 498. **GARDEN-LETTUCE.**

Lettuce is a Plant so well known, that it needs very little Description; it has yellowish, green, roundish Leaves, narrowest next the Stalk, which is smooth; and the Leaves, which grow on it, in some measure encompass it. The Flowers grow on the 'Tops, and are small and yellow, like those of the Sow-thistle, but much less, growing on long scaly Calyces, and turning into Down, bearing short, flat, whitish Seed. The Roots are neither large nor spreading, dying after Seed-time. It is sown in Gardens. The Leaves and Seed are used.

Lettuce is much used at the Table in the Spring, among Sallads; and is the principal Ingredient in most of them, being grateful to the Stomach, allaying Heat, quenching Thirst, and attempting the Sharpness of Humours in the Body; it provokes Urine, increases Milk in Nurses, and is believed to make People sleepy. The Seed is one of the Four smaller cold Seeds. *Miller's Bot. Off.*

In the Decline of Age, which is naturally wakeful, I suffer'd very much, says *Galen*, by want of Sleep; for which Disorder I used in the Evening to eat a Lettuce, which was my sovereign and only Remedy. Many boil the tender Herb, before it produces Stalks, in Water, as I myself now do, says *Galen*, since my Teeth begin to fail me.

For a Phrensy, Delirium, burning Fever, and other like Dis-

orders, let there be applied to the Temples, the Coronal Suture, and the Wrists, a double or treble Linen Cloth, well moisten'd in Water of Lettuce, in which purified and crystallized Nitre, or Sal Prunellæ, have been dissolved, in the Proportion of half an Ounce to a Pint. I prefer this Remedy, says *Simon Paulli*, far before Oil of Roses, mixed with the Juice of Lettuce in such Cases. *Raii H. P.*

The ninth is the

Lactuca; *Romana*; *longa*; *dulcis*. J. B. 2. 998. *Tourn. Inst.* 473.

The twelfth is the

Lactuca; *capitata*. C. B. P. 123. *Tourn. Inst.* 473.

These two, says *Dale*, are indiscriminately classed with the former.

Lactuca is, also, a Name for several Sorts of *CHONDRILLA*; which see.

The *Historia Plantarum*, ascrib'd to *Boerhaave*, informs us, that Lettuce is in very great Esteem among the *Italians*; that no Herb more powerfully resolves, and brings away the black Bile; that the Antients esteemed the fourth and fifth Species poisonous, to which he seems to give Credit, because their Juices approach near the Nature of Opium; and that Lettuces are excellent in acute Disorders, which arise, during the Summer, from excessive Heat of the Blood and Bile. *Antonius Musa* is said to have cured *Augustus Cæsar* by Lettuces; and they are said to excite an Appetite.

Lettuces in general are esteemed emollient, refrigerating, saponeous, resolvent, diuretic, and somewhat laxative; but they are better raw, than boil'd. In the Book above-quoted a Story is related of an *English* Nobleman, who indulged himself very much in eating Lettuces, and during that time had no Children; but upon leaving off Lettuces, as he was advised, his Lady, the next Year, brought him a Child. This agrees with what *Dioscorides* says upon the Subject of Lettuces, which is, that they are Enemies to Venereal Inclinations; and he adds, that they are prejudicial to the Eyes.

Athenæus and *Constantine Cæsar* say, that the *Pythagoreans* called this Plant the *Eunuch*; and the Antients fabled, that, after the Death of *Adonis*, *Venus* lay upon a Bed of Lettuces, in order to repress her lewd Inclinations; and for this Reason some of the *Pagans* made a religious Scruple of eating them.

Four Ounces of the Juice of Lettuce are said, by *Sennertus*, to be a Poison.

LACTUCELLA. The Sow-thistle. *Blancard.*

LACTUCIMINA. *APHTHÆ.* *Blancard.*

LACTUMEN. The same as *ACHOR*; which see.

LACUNÆ. Certain Glands, or rather excretory Ducts, in the *Vagina*, are thus called. The Glands, also, or their excretory Ducts, in the *Urethra*, have sometimes this Appellation.

LACUNE. *TERRA SIGILLATA.* *Rulandus.*

LADANUM.

CISTUS LADANIFERA. Offic. *Cistus Ladanifera Cretica vera*. Park. *Theat.* 666. *Cistus Ladanifera Cretica flore purpureo*. *Tourn. Cor.* 19. *Itin.* 1. 59. *Cistus a qua Ladanum in Creta colligitur*. Bellon. *Obs. lib.* 1. cap. 7. *Cistus, Ledon Cretense*. C. B. Pin. 467. *Jonst. D. Cistus Laurinis foliis*. Wheel. *Itin.* 219. *Cistus Ledon Matthioli*. Ger. 1107. *Emac.* 1289. *Ladanum Creticum*. Alpin. *Exot.* 89. **THE TRUE LADANIFEROUS SHRUB.**

It is a Shrub of two or three Feet high, having pretty large, five-leav'd, rose-coloured Flowers; and several Branches about the Thickness of a little Finger, hard and brown, divided into lesser Twigs, of a reddish Colour, having the Leaves set by Pairs, which are thick, and full of Veins, of a dark-green Colour, about an Inch and an half long, and three Quarters of an Inch broad, waved about the Edges, and standing on short Foot-stalks.

From this *Cistus* the best Ladanum is procur'd in the Island of *Candy*, and other Places in the *Archipelago*; they make use of a kind of Whip, of two Rows of Leather Straps, with which they brush and beat these Shrubs; the Gum, which sweats out from the Leaves, sticking on the Straps, which they scrape off with Knives, when they are sufficiently loaded.

There are three Kinds of Gum-ladanum in the Shops, the finest is of a shining black Colour, when broken, somewhat hard, but easily softening by Heat, of an inflammable Substance, having a sweet pleasant Smell. The second Sort comes over in Rolls, like the *Spanish* Juice of Liquorice; but is tougher, harder, not so black, but more drossy, and of a less fragrant Smell. The last and coarsest Sort is made up in Rolls, twisted about like the Rolls of a small Wax-candle: This is full of Sand and Dross, and of a weaker Scent than either of the former.

This Gum is not much used inwardly, though some commend it for Loosens and Gripes, caused by sharp Humours. The Fume of it comforts the Brain, and stops catarrhus Deffluxions. Outwardly applied, it strengthens the Stomach, and stays Vomiting. *Miller's Bot. Off.*

In the Time of *Dioscorides* it was gathered from the Hairs of the Goats, which fed among the Trees which produce it; but at present, according to *M. Tournefort*, the *Greek* Monks gather

it from the same Trees, with a sort of Rakes. The *Greek* and *Turkish* Ladies carry little Balls of *Ladanum* to smell to, as ours do Nosegays, or Oranges. It is an excellent Balsamic in Dysenteries and Hoarseness; and, being likewise astringent, it strengthens the Stomach and Intestines, and, when applied outwardly in Plaisters, is useful in the same Intentions. The *Emplastrum Stomachicum* of *Charas*, of which Labdanum is the Basis, has been successfully used in habitual Vomiting. It is, also, an Ingredient in the *Prior of Cabriere's* Plaister for *Hernias*. *Geoff.*

Dale says, it mollifies, digests, maturates, and attenuates; and that, externally applied, it softens, and is anodyne, and good for the Tooth-ach, *Alopecia*, Heart-burn, Pains of the Stomach, and hysteric Fits.

LÆMOS, λαίμωδς. The Gullet.

LÆTIFICANS. An Epithet for several Shop Compositions, which are designed for raising the Spirits.

LÆVIGATIO, Levigation, is the Reduction of a hard Substance to a Powder, by grinding it on a Porphyry.

LAGANON. A sort of coarse Cake, mentioned by *Galen*, *L. 1. C. 4. de Alimentorum Facultatibus*.

LAGAROS, λαγάρος, lax. An Epithet for the Right Ventricle of the Heart.

LAGNEIA, or LAGNEUMA, λαγνεία, or λάγνευμα. Vene- real Intercourse. *Hippocrates*.

LAGOCHEILOS, λαγόχειλος. A Person who has a Hare- Lip. *Galen*.

LAGON, λαγών. The Flank.

LAGOPHTHALMIA. See ECTROPIUM.

LAGOPUS, in Botany, is a Name for the *Trifolium*; *arvense*; *humile*; *spicatum*.

LAGOPUS, in Zoology, is the *Perdix Alba*. See PER- dix. It imports Hare-footed.

LAMAC. Gum Arabic. *Rulandus*.

LAMARE. Sulphur. *Rulandus*.

LAMBACISMUS. A Defect in the Speech, which con- sists in an Inability to pronounce certain Consonants.

LAMBDOIDES. The Name of a Suture in the Skull, fo called from its Resemblance to the *Greek* Letter Λ , *Lambda*.

LAMBITIVUM. A Linctus, or Eclegma.

LAMINA. Properly, a Plate of Metal, or of any other Substance. The Tables of the Skull, in Anatomy, are called the External, and Internal Laminæ.

LAMIUM.

The Characters are;

The Galea is entire and hollow, the Beard bifid, and shaped like a Heart. The Calyx is quinquefid, and oblong like a Tube. The Seeds are triangular.

Boerhaave mentions seventeen Species of this Plant; which are,

1. *Lamium*; *purpureum*; *fetidum*; *folio subrotundo*; five *Galeopsis* *Dioicoridis*. *C. B. P. 230. Tourn. Inst. 183. Boerb. Ind. A. 157. Lamium rubrum. Offic. Ger. 568. Emac. 703. Raii Hist. 1. 559. Synop. 3. 240. Lamium vulgare, folio sub- rotundo, flore rubro. Park. Theat. 604. Galeopsis, five Urtica iners, folio & flore minore. J. B. 3. 323. RED ARCH- ANGEL.*

This Archangel is much smaller than the *Lamium album, non fatens, folio oblongo*, having little, square, and frequently redish Stalks, which have a couple of Leaves growing on them, near the Ground, on long Foot-stalks, and usually no more till to- wards the Top, where they grow thick together on very short ones: They are much of the Shape of the *Lamium album, non fatens, folio oblongo*, but a great deal less, and rounder pointed. The Flowers grow among the upper Leaves, being almost hid by them; they are small, labiated, and galeated less than the Flowers of the *Lamium album, non fatens, folio oblongo*; they are of a pale-red Colour. The Root is small and fibrous, dying, after it has ripened its Seed. It grows every-where in Hedges by Highways, and flowers in Summer. The whole Plant has a strong, earthy, unfavoury Smell. The Leaves and Flowers are used.

This is accounted good for an Excess of the Catamenia, and of Use against all other Hæmorrhages. Outwardly applied, it is serviceable in Wounds and Inflammations. *Miller's Bot. Off.*

The Flowers are recommended for stopping a Dysentery, and Hæmorrhages from Wounds. The Herb, bruised and applied, is said to discuss all sorts of Tumors; and to be of Service to Wounds, putrid Ulcers, and Inflammations. *Dale*.

2. *Lamium*; *purpureum*; *fetidum*; *folio subrotundo*; mi- nus.

3. *Lamium*; *album*; *fetidum*; *folio subrotundo*. *C. B. P. 231.*

4. *Lamium*; *album*; *fetidum*; *folio subrotundo*; minus. *C. B. P. 231.*

5. *Lamium*; *album*; non fetens; *folio oblongo*. *C. B. P. 231. Boerb. Ind. A. 157. Lamium album, Urtica mortua. Offic. Lamium album. Ger. 568. Emac. 702. Raii Hist. 1. 559. Synop. 3. 240. Lamium vulgare album, five Archangelica flore albo. Park. Theat. 604. Tourn. Inst. 183. Galeopsis, five Urtica iners, floribus albis J. B. 3. 322. WHITE ARCHANGEL.*

The Roots of this Archangel are long, slender, and creeping along the upper Part of the Earth, and sending forth several square hollow Stalks, about a Foot high; the lower Leaves stand on long Foot-stalks, those towards the Top have shorter; they are, in Shape, like the common Stinging-nettle, are hairy, and roundly indented about the Edges; the Flowers grow, to- wards the Top, at the Joints, with the Leaves encompassing the Stalks in thick Whorles; they are large and white, with an hol- low Galea; and the Labella cut into two Segments, having three or four black Apices standing in the Middle; the Calyces end in five Points, containing four brown Seeds in each Calyx. It grows every-where by Hedge-sides, and flowers in *April* and *May*. The Flowers are used.

They are accounted a Specific against the Fluor Albus, and are used in a Conserve, or Decoction, for that Purpose, which is to be continued for some time. Some commend the Herb as of great Use against the King's-evil, and all scrophulous Swel- lings.

The only officinal Preparation is the Conserve of the Flowers. *Miller's Bot. Off.*

This Plant is emollient, inciding, diuretic, and lithontriptic. It is good against hysteric Fits; and the Root is recommended for the Jaundice. *Dale*.

6. *Lamium*; *purpureum*; non fetens; *folio oblongo*. *C. B. P. 231.*

7. *Lamium*; *Parietariæ facie*. *M. H. Blasf.*

8. *Lamium*; *Parietariæ facie*; flore albo.

9. *Lamium*; *maximum*; *sylvaticum*; *rubrum*. *Flor. 2. 68.*

10. *Lamium*; *foliis caulem ambientibus*; *majus*. *C. B. P. 231.*

11. *Lamium*; *folio caulem ambiente*; *minus*. *C. B. P. 232. M. H. 3. 386.*

12. *Lamium*; *rubrum*; *minus*; *foliis profunde incis*. *Raii Synop. 129.*

13. *Lamium*; *maximum foetens*; *purpureum*; *Galea hormini*. See HORMINUM SYLVESTRE.

14. *Lamium*; *alba Linea notatum*. *C. B. P. 231.*

15. *Lamium*; *quæ Moldavica, Orientalis*; *Hederæ terrestris folio*. *T. Cor. 11.*

16. *Lamium*; *Italicum*; *maximo flore rubro*; *glabrum*.

17. *Lamium*; *perenne*; *villosum, folio Catarix crispo*; *flore magno, variegato*. *Vail. Boerb. Ind. alt. Plant. Vol. 1. p. 157.*

LAMIUM is, also, a Name for several Sorts of GALEOPSIS; which see.

LAMIUM MONTANUM. A Name for the *Melissa*; *humilis*; *latifolia*; *maximo flore, purpurascens*.

LAMIUM PALUDOSUM. A Name for the *Marrubiastrum*; *palustre*; *fetidum*.

LAMIUM PEREGRINUM. A Name for the *CASSIDA*; which see.

LAMNEIA, λαμνεία. The same as LAMINA. *Castellus* from *Moschion*.

LAMPE, λάμπη. It imports Froth or Foam; or a pingu- ous Substance floating on the Surface of Vinegar, or the Pickle of Olives; or the Bubble on the Surface of Urine, in *Actua- rius*.

LAMPETRA. *Offic. Rondel. de Pif. 1. 398. Jonf. de Pisc. 79. Schonef. Ichth. 40. Charl. de Pisc. 34. Mer. Pin. 188. Lampetra Rondeletii. Raii Ichth. 105. Ejuld. Synop. Pisc. 35. Lampetra major. Aldrov. de Pisc. 539. Salv. de Aquat. 63. Mustela, five Lampetra. Bellon. de Aquat. 75. THE LAM- PREY, or LAMPREY-EEL.*

Lampreys are of two Sorts, the Sea and River Lamprey; and both of them are used for Food. Those which are tender, delicate, fat, well-fed, and taken in fine, clear, and running Water, are best. They are nourishing, and increase the seminal Juices; the Fat is of a mollifying and dissolving Nature. Those who have had the Small-pox, anoint the Face and Hands with it, to efface the Marks.

Lampreys are alleged to be pernicious to those who have a Weakness in the Nerves, or are subject to the Gout and Gra- vel. It abounds with Oil, volatile Salt, and Phlegm; and agrees, especially in Spring, with young People of an hot and bilious Constitution, with such as have good Stomachs, and whose Hu- mours are thin. But those who are old, phlegmatic, and abound with gross Humours, should either abstain from it, or use it moderately.

REMARKS.

The Lamprey is a Fish shaped like a large Eel. Its Fat hath a delicious Taste. It antiently was, and still is, much esteem'd. It lives in stony Places, and feeds upon Mobs and Water. It is said, that, soon after it has produced its Young, it insen- sibly decays and dies, and all in the Space of two Years.

The Sea Lamprey is of the Number of those Fishes that leave the Sea in the Beginning of the Spring, in order to spawn in the Rivers; and, after a proper time, return, with their Young, to their former Place.

The River Lamprey continues in fresh Water, and is often found in Brooks, which the Sea-water never reaches. In Shape and

and Taste it resembles the Sea Lamprey; but differs from it in Size, being much less.

In Spring the Lampreys are tender and delicious Food; but at all other times they are said to be hard, tough, and almost tasteless. Their oily and balsamic Parts, which easily unite with, and repair the Decays of the Solids, make them very nourishing; but the dull, viscous, and gross Juices, which they also contain, render them hard of Digestion; but their Digestion is still easier than that of an Eel.

Lampreys may be boil'd, roasted, fried, or baked in Pies; they are, also, salted and dried for keeping, or ported. Some ancient Authors have recommended the drowning of the Lamprey in Wine, that it may deposite in it its malignant Quality. But I am of Opinion, that Wine and Spice are proper for seasoning this Fish, not upon account of its imagined malignant Quality, but because they will promote the Digestion of the Lamprey, by attenuating its thick and viscous Juices. *Lemery des Drogues.*

LAMPODES, λαμπώδης. Frothy. See LAMPE.

LAMPROS, λαμπρός, in Hippocrates, is, Vigorous, or in full Health.

LAMPSANA.

The Characters are;

The Calyx is monophyllous, deeply jagged in many Places, and passes into a striated Capsule, full of thin sharp-pointed Seeds.

Boerhaave mentions two Species of this Plant; which are,

1. *Lampfana*. Offic. Ger. 199. Emac. 255. Raii Synop. 77. Tourn. Inst. 479. Boerb. Ind. A. 93. *Lampfana Dodonæi*. J.B. 2. 1028. Raii Hist. 1. 256. *Soncho affinis Lampfana domestica*. C. B. P. 124. *Intybus, sive Endivia erecta lutea Napifolia, Lampfana dicta*. Hist. Oxon. 3. 54. NIPPLEWORT.

It is frequent in Gardens and Fields, and flowers in June and July. It is esteemed excellent for curing ulcerated Nipples, whence its Name *Nipplewort*. It is said to be drying, detergent, and digestive. The Leaves and Stalks may be boiled, and used as Food.

It is not easy to determine, exactly, what the true *Lampfana* of *Dioscorides* is.

2. *Lampfana*; folio amplissimo, crispo. *Petiver. Hort. Ind.* 2. *Boer. Ind. alt. Plant. Vol. 1. p. 93.*

LAMPYRIS, λαμπυρίς, is a Name for the Glow-worm. See CICENDELA.

LANA. Wool. The *εἰς ῥυπαρά*, *Lana succida*, sordid Wool, or that which is greasy, and impregnated with the Sweat of the Sheep, is frequently recommended by the Antients. Thus Hippocrates directs this Sort of Wool, well carded, and impregnated with Oil and Wine, to be bound upon Tumors, *Lib. de Fracturis*. And he mentions it in many other Places. And Celsus directs it as a proper Application in many Cases; and in *Lib. 4. Cap. 5.* he recommends sulphurated Wool as a proper Application to the Stomach, in case of an Inflammation.

The *εἰς ῥυπαρά* is the same as the *εἰς ῥυπαρά*.

Dioscorides informs us, that of sordid soft Wool, that about the Neck and Inside of the Thighs is best. Dipt in Vinegar and Oil, or Wine, it is of Service, at first, in Wounds, Contusions, Excoriations, Bruises, and Fractures of the Bones: For it imbibes whatever Liquor it is immersed in; and is emollient, by reason of its Oesypum. It is, likewise, beneficial in a Cephalalgia, Pains of the Stomach, and any other Part, if it is applied with Vinegar, and Oil of Roses. *Lib. 2. Cap. 82.*

But burnt Wool is an Escharotic, suppresses Excrecences of the Flesh, and cicatrizes Ulcers. Being clean and carded, it is burnt in a crude Earthen Vessel, like other things. In the same manner is Wool, dyed with Sea-purple, burnt. But some card it without cleaning; and, moistening it with Honey, burn it the same way. Others dispose Splints, at a Distance from each other, upon an open-mouth'd Earthen Vessel, and between them lay thin Splinters of the *Tiela* (Σάδλωρ): Upon these they place the Wool, carded and dipt in Oil, in such a manner that it may not drop; then, laying Splints and Wool again alternately between, they gently set Fire to the Wood, and gather the Remains. But if any Fat, or Pitch, flows from the Pine, they collect, and lay it by. This calcined Wool is a good Ophthalmic. After it has been put into an Earthen Vessel with Water, washed, and well stirred with the Hands, when the Ashes subside, that Water is poured off, and fresh put in, and likewise stirred: This is continued, till, being applied to the Tongue, it has no sharp Taste, but, as it were, astringes. *Dioscorides, L. 2. Cap. 83.*

OF OESYPUM.

The Fat of sordid Wool, termed *Oesypum*, is thus prepared:

Take soft sordid Wool, uncarded, and not cleaned; wash it in warm Water, and, at the same time, express all the Sordes; throw this into a large-mouth'd Vessel, and, when you have poured the Water to it, take it up in a Ladle, and drop

it again from a great Distance, till it froths; or stir it well with a Strick, till a Quantity of sordid Scum is collected; then sprinkle into it some Sea-water. And when the Fat, which swam at the Top, subsides, put it into another Earthen Vessel, and, having poured Water to it, stir it again; then sprinkle the Froth with Sea-water, and take it out. Continue this, till the Fat is consumed, and no Froth remains. When you have well pressed the Oesypum, if any Impurity is left behind, remove it immediately, and, pouring out the first Water, Drop by Drop, add some fresh: Stir it with your Hand, till the Oesypum, applied to the Tongue, hath no sharp Taste, but, as it were, astringes, and appears fat, pure, and white: Thus prepared, put it into an Earthen Vessel.

Let this be done in the Summer. Some, straining off the Fat, wash it in cold Water, and rub it with their Hands, as Women do Cerate; for thus it becomes whiter. Others, after washing the Wool, and separating the Sordes, boil it, with Water, in a Pot, over a gentle Fire, collect the rising Fat, and wash it in Water, as we have already mentioned; then, straining it off, they put it into an Earthen Pot, with warm Water, cover it with a Linen Cloth, and expose it to the Sun, till it becomes sufficiently thick and white. Some, after two Days, pour away the first Water, and put in fresh.

That is best which is light, smells strongly of sordid Wool, and grows white while it is rubbed in the Vessel, and has nothing hard or compact in it, as if it was adulterated with Cerate or Fat. It has a Faculty of warming, closing Ulcers, and mollifying; but, principally, of the Fundament, and Vulva, with Melilot and Butter: Applied with Wool, it promotes Delivery, and the Menfes. It is serviceable, with Goose-fat, in Ulcers of the Ears and Genitals. It is, likewise, efficacious in Corrosions, and itchy Eruptions, of the Corners of the Eyes, Callosities of the Eyelids, and when the Hairs of the Eyelids fall off; but it is burnt in a new Vessel, till, being calcined, it loses its Fat. The Smoak of this, collected, is a very good Ophthalmic. *Dioscorides, Lib. 2. Cap. 84.*

LANARIA. A Name for the *Lychnis sylvestris*; *qua Saponaria vulgo.*

LANARIUS. A Species of Hawk.

LANCETTA, or LANCEOLA. A Lancet.

LANGII *Aqua Epileptica*. *Langius's* Epileptic Water is thus prepared:

Take of the Flowers of the Lilies of the Valley, twelve Handfuls; and infuse them for five Days, in four Quarts of generous *Spanish* Wine. Then distil with Glass Vessels, in a Bath of warm Water, till the Flowers are left almost dry, in the Bottom of the Retort. Then take of recent Flowers of Lavender moderately dried, one Ounce; Cinnamon, six Drams; Nutmegs, Mistleto, Peony-root, and Dittany, recent Flowers of Rosemary moderately dried, and of Stoechas, each half an Ounce; Long-pepper, and Cubebs, of each two Drams: Let all be grossly powdered, and macerated for eight Days, in a Vessel, closely stoppt, with the distilled Water above described; then distil again.

It fortifies the Brain, and refreshes the vital Spirits; it rarefies and dissipates thick Phlegm, excites the Appetite, and is particularly used in an Epilepsy. The Dose is from two Drams to an Ounce. *Lemery's Pharm. Univers.*

LANGUOR. Faintness, or Feebleness.

LANIGERA *Arbor*. The Cotton-tree.

LANIGERUS. Lanigerous Trees are such as bear such a woolly or downy Substance as is commonly contained in the Catkins of the Willow.

LANIUS. The same as LANARIUS.

LANS. *Rulandus* explains this, *Argentum mortuum*.

LANTANA. A Name for the VIBURNUM; which see.

LANTOR. The Name of a Species of Palm-tree, which grows in Java.

LANUGINOSUS. Lanuginous signifies downy, or cover'd with a soft Down, as a Quince.

LANUGO, in Botany, is Down, which grows on some Plants. See CHNUS.

LANX. A Balance, or Pair of Scales for weighing. *Rulandus* explains *Lanx* by *Amygdala Dulces*.

LAONICA *Curatio*. A Method of curing the Gout, by evacuating the arthritic Matter from the Part affected, by Topics. *Castellus.*

LAOS. Tin. *Rulandus.*

LAPACTICUS, λαπακτικός, imports loosening, or evacuating the Belly.

LAPARA. The Flanks; that is, the Parts which are situated betwixt the spurious Ribs, and the Hips, or *Ossa Ilii*.

LAPAROS, λαπαρός, imports soft, or empty.

LAPATHUM.

The Characters are;

The Calyx is hexaphyllous, three of the Leaves being larger, and red, the other three lesser, and green, within these Leaves

are

are placed six Stamina. The larger Leaves, being come to Maturity, close, and form a triangular Vessel, while the other three wither and fall off; for which Reason some rather take the Leaves for a Flower, and its Calyx. The End of the Pedicle within the Calyx produces a Placenta, on which grows a triangular Ovary, adorned with three Tubes, their Apices elegantly fimbriated, which appear on the Sides without the Segments of the Capsula. The Seed is shining and triangular. *Boerb. Ind. alt. Pars 2. p. 84.*

Boerhaave mentions eighteen Species of this Plant; which are,

1. *Lapathum*; præstantissimum; *Rhabarbarum Officinatum*. See *RHABARBARUM*, and *RHAPONTICUM*.

2. *Lapathum*; *Alpinum*; folio subrotundo. *Hist. Oxon. 2. 578.* *Boerb. Ind. A. 2. 84.* *Hippolapathum*. *Offic. Hippolapathum rotundifolium*. *Ger. 313. Emac. 389. Hippolapathum rotundifolium vulgare*. *Park. 154. Lapathum hortense rotundifolium sive montanum*. *C. B. P. 115. Lapathum folio rotundo Alpinum*. *J. B. 2. 987. Tourn. Inst. 504. An Rhabarbarum rotundifolium fimbriatum*. *Munt. Herb. Brit. 194. BASTARD MONKS RHUBARB.*

This is the Rhubarb, which, according to *Dale*, the Herb-women of *London* sell for the true Monks Rhubarb. The Stalk is two or three Cubits high, and the Leaves are very broad, like those of the Burdock, of a pale-green Colour, distinguish'd with numerous Veins, and of a subastringent Taste. The Root is thick, oblong, brown without, and intensely red within. The medicinal Virtues ascribed to it are much the same as those of the true Monks Rhubarb.

3. *Lapathum*; *hortense*; folio oblongo; sive secundum *Diofcoridis*. *C. B. P. 114. Tourn. Inst. 504. Boerb. Ind. A. 2. 84. Lapathum sativum Lapas*. *J. B. 2. 985.*

This Dock grows frequently to be as tall as a Man, having, at the Bottom, several large, long, and pointed Leaves, growing on redish Foot stalks. The Stalk is red, having a few smaller Leaves growing on it; is branched toward the Top, and full of pretty big stameneous Flowers, succeeded by a large triangular Seed. The Root is thick at the Head, and divided into several Branches, of a brown Colour on the Outside, and a deep-yellow or saffron Colour within, full of redish Veins, of a styptic Taste, and tinging the Spittle of a yellow Colour. It is planted with us in Gardens, but grows wild in divers Parts of *France, Italy, and Germany.*

This is the *Rhabarbarum Monachorum*, which has been used in *England* many Years, and what *Gerard* and *Parkinson*, and, also, *Mr. Ray*, took to be the true: But if we may credit *John Bauhine*, that is another Species of *Lapathum*, called by him, *Lapathum majus sive Rhabarbarum Monachorum*; and is the *Lapathum hortense latifolium*, *C. B.* and the *Hippolapathum sive Rhabarbarum Monachorum, Dodonæi*. But since these two so nearly resemble one another, that *Mr. Ray* did not distinguish them, we may suppose ours will answer all the Intentions which it is used for, as well as the other.

Monks Rhubarb is opening, and a little purgative, being somewhat of the Nature of the true Rhubarb, but not so strong: It is frequently used in Diet-drinks for the Scurvy, and to open Obstructions of the Liver and Spleen, and help the Jaundice.

Tho' this Plant grows easily enough in our Gardens, yet, as *Mr. Dale* observes, our Herb-women generally impose upon us, for it, the Root of the *Lapathum rotundifolium Alpinum*, *C. B.* or, *Hippolapathum rotundifolium vulgare, Bastard Rhubarb, Park.* which is rather a larger Root of a paler yellow Colour, wanting the redish Veins, and give a fainter Tincture to the Spittle. *Miller's Bot. Off.*

4. *Lapathum*; *aquaticum*; folio cubitali. See *BRITANNICA*.

5. *Lapathum*; *hortense*; latifolium. *C. B. P. 115. Boerb. Ind. A. 2. 85. Tourn. Inst. 504. Rhabarbarum Monachorum. Offic. Hippolapathum sativum. Ger. 313. Emac. 389. Raii Hist. 1. 171. Lapathum majus sive Rhabarbarum Monachorum. J. B. 2. 985. Lapathum sativum sive Patientia. Park. Theat. 154. Lapathum sativum Antiquorum aut longifolium sive Patientia. Munt. Herb. Brit. 198. MONKS RHUBARB.*

See *Lapathum, Hortense, folio oblongo.*

This is said to purge off the yellow Bile, and serous Humors, taken in the Quantity of a Dram powder'd, with a Scruple of Ginger, in a Morning fasting, in warm Broth. If substituted for Rhubarb, it must be taken in a double Dose. The Juice of the Root, with Sulphur, used as a Topic, cures the Itch; and with the Meal of Lupines, it cures Pimples, Freckles, the Alphas, and other cutaneous Disorders, according to *Matthioli*. A Tincture of the Root prepared with Wine, or the dry'd Powder taken in pure Wine, is said to expel the Stone from the urinary Passages; and, taken with the Juice of the Horehound, it is recommended for the Jaundice.

6. *Lapathum*; *ramis procumbentibus*; *seminis involucreo dentato*; *foliis inferioribus instar fidium*. *M. H. 2. 580.*

7. *Lapathum*; folio acuto, plano. *C. B. P. 115. Tourn. Inst. 504. Boerb. Ind. A. 2. 85. Lapathum acutum, Oxylapathum. Offic. Lapathum acutum. Ger. 311. Emac. 388. Raii Hist. 1. 175. Synop. 56. Lapathum sylvestre angustifolium. Schrod. 4. 90. Lapathum acutum majus. Park. 1214. Lapathum acutum sive Oxylapathum. J. B. 2. 983. Munt. Herb. Brit. 209. SHARP-POINTED DOCK.*

Mr. Ray mentions this Dock as that in common Use, but

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'tis certain, that the Dock which is commonly used in the Shrope, and which has, I believe, been always used, is the common Dock, or the *Lapathum sylvestre folio subrotundo*, *C. B.* or the *vulgatius*, or *common Dock, Park.* whose Leaves are sometimes sharp-pointed, and sometimes round. As for the *Lapathum acutum* of *Mr. Ray*, it seems to be the *Lapathum acutum minus* of *John Bauhine*, according to his Description; and the *Hydrolapathum minus, Park.* and of *Lobel's Icons*, which has a small Root full of small Strings at the Bottom, and is seldom or never used. But the Root of the common Dock is pretty large and thick, running down deep into the Earth, brown on the Outside, and having a thick, deep-yellow, and sometimes a little redish Bark, with a thick, tough, hard Pith in the Middle, of a paler Colour. The Leaves are pretty large, in some Plants long and sharp-pointed, in others broad and round, growing on long Foot-stalks. It grows to be a Yard or more in Height, much branched, having the Flowers, which are small and stameneous, set about the Branches in Whorles, with here-and-there a few smaller Leaves growing among them: The Seed is of a bright redish brown Colour, and a triangular Shape. It grows every-where in moist Places, and among Ruins and Rubbish. The Root and Seed are used.

The Roots of this Dock are aperitive and cooling, and much used to cleanse and purify the Blood, free it from its salt sharp Humours, and they are good for the Scurvy, Rheumatism, and all manner of itchy, scabby Eruptions; for which Purpose they are frequently put in Diet-drinks and Apozems, and used outwardly in Ointments. The Seed is drying and binding, good to stop Spitting of Blood, and Hemorrhages of all Kinds. *Miller's Bot. Off.*

Willis recommends the Roots of this Dock in a Diet-drink, as a most excellent Antiscorbutic. And they are said by others to be effectual in a Jaundice. The Seeds, taken in Powder, corroborate the Liver, and stop all Sorts of Fluxes.

8. *Lapathum*; folio acuto, crispo. *C. B. P. 115. M. H. 2. 579. Lapathum, acutum, crispum. J. B. 2. 988.*

Tabernaemontanus's Figure is very good. It is strange, that *Morison* should confound the *Lapathum folio acuto, crispo, C. B.* Pin. with the *Lapathum aquaticum minus, J. B.* and that he should not apprehend, that this last Species is the *Puffillum fontilapathum, & Lapatholum vocatum tenellum, Adv. Pena* and *Lobel* affirm, that their Plant has its Leaves more narrow than the *Potamogeton*. *J. Bauhine* relates their Description, which ends thus; *folia angustiora multo quam Potamogetonis*: And adds afterwards, that *Pena* and *Lobel* have called it *Puffillum fontilapathum, & Lapatholum vocatum tenellum*. *Morison*, on the contrary, to *folia angustiora multo quam Potamogetonis*, adds, *Puffillum fontilapathum, & Lapathum tenellum vocati*, comparing this Plant with itself. *J. Bauhine* is by no means excusable, for having confounded the *Fontilapathum* of *Lobel* with the *Hydrolapathum minus* of the same Author: These two Plants are represented very distinctly in *Lobel*.

The Root of this Plant is very bitter, astringent, pale, yellow, and gives a pretty deep Tincture of red to blue Paper; its Leaves are fourish, and give the same Paper a lively Tincture of Red, which gives Reason to conjecture, that they contain more acid Salt; and that the Root has more acid Salt and Earth. This acid Salt approaches to that of Nitre; for it does not blacken the Tincture of Galls, any more than that of Sorrel. The Root of Dock is generally used at *Paris* in Broths, and aperitive Pisans. For Example, they scrape two Ounces of it, and boil in lean Broth, in which, having strain'd it, they dissolve half a Dram of chalybeated soluble Tartar; they boil, also, two Ounces of the same Root, and as much of the *Enula Campana*, in two Quarts of Water; they add to it, at last, a Stick of Liquorice; they strain the Pisan, and dissolve in it one Dram of vegetable Salt. They give several Glasses of it every Day, to those who have the Itch, Tetters, or other Diseases of the Skin; it is very good for the *St. Antony's Fire*, Heat of the Blood, and for the Small pox. The Root bruised is apply'd to Ulcers on the Legs, and is an Ingredient in the Ointment for the Itch: They boil for that Use in a very little Water, and a good deal of Butter, four Ounces of the Root of this Plant, and as much of that of *Enula Campana*, minced small; they strain them thro' a Sieve, and mix an Ounce and an half of Flowers of Sulphur, with six Ounces of the strain'd Liquor. *Marty's Tournefort.*

9. *Lapathum*; *minimum*. *C. B. P. 115. M. H. 2. 579. Lapathum acutum minimum. J. B. 2. 985.*

10. *Lapathum*; folio longissimo, crispo.

11. *Lapathum*; folio acuto, rubro. *C. B. P. 115. Raii Hist. 1. 174. Synop. 56. Hist. Oxon. 2. 579. Boerb. Ind. A. 2. 85. Tourn. Inst. 504. Lapathum sanguineum. Offic. Park. 1226. Lapathum sativum sanguineum. Ger. 313. Emac. 390. Lapathum sanguineum sive Sanguis Draconis Herba. J. B. 2. 988. Munt. Herb. Brit. 211. BLOODWORT.*

It is cultivated in Gardens, and flowers in *June*. The Leaves and Seeds are used in Medicine. The Leaves, taken in Broth, loosen the Bile; and the Seeds powdered, and taken in any astringent Liquor, are recommended as effectual for stopping profuse menstrual Discharges, and other uterine Fluxes. *Dale from Camerarius.*

11 K

12 Lapathum

L A P

12. Lapathum; annuum; acutum; polyspermum.
13. Lapathum; sylvestre; folio subrotundo; feminis involu-
cris dentatis. *M. H.* 2. 580.
14. Lapathum; angustifolium; capsulis verticillatis; pendulis;
elegantèr dentatis.
15. Lapathum; folio splendente, latissimo; seminum involucris
planis.
16. Lapathum; Ægyptium; capsula feminis alba & crenata.
Lippii.
17. Lapathum; Orientale; Frutex humilis; flore pulchro. *T. C.* 38.
18. Lapathum; Africanum; spinosum; latifolium. *H. M.* 102.

Boerb. Ind. alt. Plant. Vol. 2. p. 84.

Lapathum is, also, a Name for several Sorts of SPINACHIA;
which see.

Lapathum unctuosum, a Name for the *Chenopodium*; folio tri-
angulo.

LAPÉ, λῆπι. The *Latin* Interpreters of *Hippocrates* usually
translate this, *Pituita*, Phlegm; such a Fluid as is discharg'd from
the Mouth by way of Salivation.

LAPIDILLUS. The Name by which *Blasius* calls a sort of
chirurgical Spoon, with which Stones are taken out of the Blad-
der, after the Incision is made.

LAPILLATIO. A Term in *Paracelsus*, importing the Gene-
ration of a Stone.

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|-------|---|-----|----------------------|
| LAPIS | } | See | ADAMAS. |
| | | | ÆTITES. |
| | | | ALABASTRITES. |
| | | | ALECTORIUS. |
| | | | AMETHYSTUS. |
| | | | AMIANTHUS. |
| | | | ARENOSUS. |
| | | | ARMENUS. |
| | | | ASSIUS. |
| | | | BELEMNITES. |
| | | | BEZOAR OCCIDENTALIS. |
| | | | BEZOAR ORIENTALIS. |

Lapis Bononiensis, *Phosphorus Bononiensis*, *Spongia Solis*, *Lapis*
Lucidus. *Mont. Exot.* 14. *Lapis Bononiensis*. *De Lact.* 206.
Charlt. Foss. 20. *Worm. Mus.* 46. *Lapis illuminabilis*. *Aldrov.*
Mus. Metall. 688. *Phosphorus Kircheri quibusdam*. *Fosforo o*
Pietra lucida di Bologna. *Bucc. Obs. Nat.* 224. **BONONIAN**
PHOSPHORUS, **LIGHT-CARRIER**.

This is a small, grey, soft, glossy, fibrous, sulphureous Stone,
about the Bigness of a large Walnut; when broken, having a
kind of crystal or sparry Tale within; found in the Neighbour-
hood of *Bologna*, or *Bononia*, in *Italy*; and, when duly prepared,
making a Species of Phosphorus.

This Stone is found in divers Parts of that Country; particu-
larly in a River at the Foot of Mount *Palermo*, where a Chy-
mist, one *Vincenzo Casiarlo*, having gather'd some Picces, and
carried them home, in hopes, by the Fire, to extract Silver out
of them; instead of what he expected, found that admirable
Phenomenon they exhibit; which consists in this, that having
been exposed to the Light, they retain it; and shine, for the Space
of six or eight Hours, in the Dark.

We are inform'd in the *Philosophical Transactions*, that the
true Way of preparing this Stone is lost.

But we are inform'd in the *History of the Royal Academy of*
Sciences, for 1715. in *M. Homberg's* Eloge, that this great Chy-
mist recover'd it.

It is esteem'd caustic, escharotic, and emetic.

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|-------|---|-----|------------------|
| LAPIS | } | See | BUFONITES. |
| | | | CADAMIA. |
| | | | CALCARIUS. |
| | | | CARNEOLUS. |
| | | | CERATITES. |
| | | | CHELIDONIUS. |
| | | | CHRYCOLITHUS. |
| | | | COLUMBINUS. |
| | | | CORA DE CAPELLO. |
| | | | CERAUNIA. |
| | | | GALACTITES. |
| | | | GRODES. |
| | | | GRANATUS. |
| | | | HÆMATITES. |
| | | | HELIOTROPIMUM. |
| | | | HIBERNICUS. |
| | | | HYACINTHUS. |
| | | | JUDAICUS LAPIS. |
| | | | LAZULI. |
| | | | BELEMNITES. |
| | | | MANATI. |
| | | | MELITITES. |
| | | | MEMPHITES. |
| | | | MOLARIS. |
| | | | MOROCHTHUS. |
| | | | NEPHRITICUS. |
| | | | OPHITES. |
| | | | PETRACORIUS. |
| | | | PHYRGIVS. |

L A R

| | | | |
|-------|---|-----|--------------|
| LAPIS | } | See | PORCINUS. |
| | | | PUMEX. |
| | | | RUBINUS. |
| | | | SAPPHIRUS. |
| | | | SARDUS. |
| | | | SCHISTUS. |
| | | | SELENITIS. |
| | | | SERPENTINUS. |
| | | | SMARAGDUS. |
| | | | SPECULARIS. |
| | | | SPONGIÆ. |
| | | | STELLARIS. |
| | | | THRACIUS. |
| | | | THYITES. |
| | | | TOPASIUS. |

Lapis variolatum. *Offic. Ind. Med.* 95. *Variolites Lu-*
cernensis niger variolis, seu *pustulis variolis simillimis*, *partim al-*
bescens, *partim vero puniceis*, & *quasi jam ad siccitatem*
tendentibus undique insignitis. *Lang. Hist. Lapid.* 40. *Vario-*
lites Lucernensis niger. *Ejusdem Icon.* 41. **THE SMALL-**
POX STONE.

This Stone is by some recommended to be worn about the
Neck, by way of Amulet, in order to promote the Eruption of
the Small-pox.

Lapis Umbrarum. See **UMBRA**.

There are, also, many chymical Preparations, which go by
the Name of *Lapis*: Thus several Caustics have the Appellation
of *Lapis Infernalis*; see **CAUSTICA**: And the *Lapis Prunellæ* is
the *Sal Prunellæ*. Besides many others, mention'd under their
respective Articles.

Lapis Vini is Tartar.

LAPPA major, & minor. See **BARDANA**.

LAPPAGO, according to *Blancard*, is the same as **APA-**
RINE.

LAPPULA CANARIA. A Name for the *Caucalis*; ar-
vensis; echinata; magno flore: And for the *Caucalis*; arvensis;
echinata; latifolia.

LAQUEUS, in Surgery, is a Noose, and belongs either to
Bandages, or Instruments for making Extension, in Fractures and
Luxations. *Oribasius* has a Book expressly upon this Subject. A
certain malignant Inflammation of the Tonsils, is called *Laqueus*
Gutturis.

LARBASON. *Stibium*, or Antimony. *Pliny, Lib.* 33.
Cap. 6.

LARDUM. Bacon. This appears to be in general an ex-
tremely improper and unwholesome Aliment, especially for People
who do not use the most strong Exercise; for those who do,
may almost eat any thing without Injury: Besides that Swines-
flesh, consider'd as an Aliment, is none of the best, for Reasons
given under the Articles **ALCALI**, and **PORCUS**, when harden'd
by Salt, and dried by Smoke, it is render'd more indigestible,
and, in consequence of that, productive of Obstructions in a
very great Degree. We may add, that the Fat of Bacon fre-
quently becomes rancid and acrimonious, and hence has no
salutary Effect upon the Stomach, and often even excoriates the
Mouth and Throat.

LARIX.

The Characters are;

The Leaves (which are long and narrow) are produced out
of little Tubercles, in form of a Painter's Pencil, (as in the Ce-
dar of *Libanus*) but fall off in Winter. The Cones are small
and oblong, and (for the most part) have a small Branch grow-
ing out of the Top; these are produced at remote Distances
from the Male Flowers on the same Tree: The Male Flowers
are (for the most part) produced on the under Side of the
Branches, and, at the first Appearance, are very like small
Cones.

Boerhaave mentions two Species of this Plant; which are,

1. *Larix*; Orientalis; fructu rotundiori, obtuso. See **CE-**
DRUS.

2. *Larix*. *Offic. Ger.* 1183. *Emac.* 1385. *Raii Hist.* 2. 1405.
Park. Theat. 1533. *C. B. P.* 493. *Boerb. Ind. alt.* 2. 180.
Larix folio deciduo confusa. *J. B.* 1. 265. *Tourn. Inst.* 586.
THE LARCH-TREE.

This is a Tree as large as the Pine, having its Branches grow-
ing in a regular Order like the Fir, with its Leaves in Clusters,
twenty or thirty together, in a round Knot, appearing like the
Brush of a Pencil, and falling off every Year; the Cones are
oval, about as big as a Pigeon's Egg, with broad and smooth
Scales. This Tree grows in great Plenty in the *Stirian Alps*,
and the Mountains of *Tirol* and *Carinthia*. From this Tree, cut
into the very Heart, towards the lower Part of the Trunk, ac-
cording to *Matthioli*, is gotten the *Ventæ* Turpentine. See
TEREDINTHINA VENETA.

LARVA. A Mask. Certain Bandages contrived for the
Face are thus called. See **FASCIÆ**.

LARUS.

LARUS. Offic. *Larus major*. Aldrov. Ornith. 3. 62. *Larus Hybernus*. Baltn. *Larus major Aldrovandi*. Will. Ornith. 261. Rall Ornith. 351. Ejsld. Synop. A. 129. *Larus fuscus five Hybernus*. Ejsld. 130. Will. Ornith. 266. THE CODDY-MODDY.

The Brain, Heart, and Stomach, are used in Medicine. The Brain, dried, cures an Epilepsy, according to *Caelius Aurelianus*. The Heart is said to facilitate Delivery; and the Stomach to help Digestion. Dale.

LARYNGOTOMIA. Laryngotomy. The same as *Bronchotomia*. See ANGINA.

LARYNX.

The Larynx forms the Protuberance in the upper and anterior Part of the Neck, called, commonly, *Pomum Adami*. Anatomists term it, the Head of the Trachea Arteria; and it is larger, and more prominent, in Men than in Women.

It is principally made up of five Cartilages, the Names of which are, *Cartilago Thyroides*, which is the anterior and largest; *Cricoides*, the inferior, and Basis of the rest; two *Arytenoides*, the posterior and smallest; and the *Epiglottis*, which is above all the rest: These Cartilages are connected together by Ligaments, and they have, likewise, Muscles, Glands, and Membranes, belonging to them.

The *Cartilago Thyroides* is large and broad, and folded in such a manner as to have a longitudinal Convexity on the fore Side, and two lateral Portions, which may be term'd *Ala*. The upper Part of its anterior middle Portion is form'd into an angular Notch; the upper Edge of each *Ala* makes an Arch, and, together with the middle Notch, these two Edges resemble the upper Part of an Ace of Hearts, in playing Cards.

The lower Edge of each *Ala* is more even, and the posterior Edges of both are very smooth, being lengthened out both above and below by Apophyses, which I name the *Cornua* of the Thyroide Cartilage. The superior Apophyses are longer than the inferior, and the Extremities of all the four are rounded like small Heads, which, in the inferior Apophyses, have a shining Surface on the Inside, resembling an articular Eminence.

On the Outside of each *Ala*, near the Edge, is a prominent oblique Line, which runs from behind forward. The upper Extremity of this Line is near the superior Apophysis, or Cornu, and both that and the lower Extremity end in a small Tuberosity, the lowest being often the most considerable. These Tuberosities serve for the Insertion of Muscles and Ligaments. The Inside of the *Ala*, and the convex Side of the anterior Portion, are very uniform; and this Cartilage ossifies gradually in old Age.

The *Cricoides* Cartilage resembles a kind of thick, irregular Ring, very broad on one Side, and narrow on the other; or it may be compared to a small Portion of a thick Tube, cut horizontally at one End, and very obliquely at the other. I distinguish it into a Basis and Top, into an anterior, posterior, and two lateral Sides. The Basis is almost horizontal, when we stand; and to this the *Aspera Arteria* is connected, so that the *Cricoides* may be looked upon as the upper Extremity of the *Trachea*.

The posterior Portion of the *Cricoides* is larger than the rest, and its posterior or convex Side is divided by a longitudinal Eminence, or prominent Line, into two distinct Surfaces, for the Insertion of Muscles. The Top is gently sloped above this prominent Line, and terminates on each Side by a kind of obtuse Angles, formed between it and the oblique Edge of each lateral Portion of this Cartilage. At the upper Part of each of these Angles there is a very smooth articular Surface, gently convex.

The whole posterior Side is distinguished into two lateral Portions, by two prominent Lines, each of which runs down almost in a straight Direction from the articular Surface at the Top, a little below the Middle of this Side, where it terminates in another articular Line, a little concave; and near these four articular Surfaces there are small Tubercles. The two superior Surfaces are for the Articulation of the *Cartilagines Arytenoidæ*, as we shall see presently; and the two inferior, for the Articulation of the inferior Cornua, or Appendices, of the *Cartilago Thyroides*.

The *Cartilagines Arytenoidæ* are two small, equal, and similar Cartilages, which, joined together, resemble the Spout of an Ewer, and they are situated on the Top of the *Cricoides*. In each we may consider the Basis, Cornu, two Sides, one posterior and concave, the other anterior and convex, and two Edges, one internal, the other external, which is very oblique. The Bases are broad and thick, and have each a concave articular Surface, by which they are joined to the *Cricoides*.

The *Cornua* are bent backward, and a little toward each other. In some Subjects they are very loose, appearing like true Appendices, and easily separable from the rest. Between their inner Edges they form a kind of Fissure, and their outer oblique Edges terminate each by a thick prominent Angle.

The *Epiglottis* is an elastic Cartilage, nearly of the Figure of a Purslane-leaf, narrow and thick at the lower Part, thin and slightly rounded at the upper Part, gently convex on the fore Side, and concave on the back Side. It is situated above the anterior or convex Portion of the *Cartilago Thyroides*; and its lower Extremity is tied by a short, pretty broad, and very strong

Ligament, to the middle Notch in the upper Edge of that Cartilage. It is perforated by a great Number of Holes, something like those in the Leaves of the *Hypericum*, or *St. John's Wort*, which are hid by the Membranes which cover its two Sides.

The *Cartilago Thyroides* is connected to the *Cricoides*, by several short, strong Ligaments, round the Articulations of the two inferior Cornua with the lateral articular Surfaces of the *Cricoides*. The Apices of the superior Cornua are fixed to the posterior Extremities of the great Cornua of the *Os Hyoides*, by slender round Ligaments, about a Quarter of an Inch in Length.

In the Middle of each of these Ligaments, we often meet with a small Cartilage of an oval Figure, and much thicker than the Ligaments. The *Thyroides* is likewise connected to the *Os Hyoides*, by a short, broad, strong Ligament, one End of which is inserted in the superior Notch of the Cartilage, and the other in the lower Edge of the Basis of the Bone. It has, also, two Ligaments in the middle of the concave Side, which belong to the *Arytenoidæ*.

The *Cricoides* is tied to the lower Part of the *Thyroides*, by a strong Ligament; and by the Ligaments already mentioned, to the inferior Cornua of that Cartilage. Its Basis is fixed to the first cartilaginous Ring of the *Trachea Arteria*, by a Ligament exactly like those by which the other Rings are connected together; and the membranous or posterior Portion of the *Trachea* is, likewise, fixed to the posterior Part of the Basis of the *Cricoides*.

The *Cartilagines Arytenoidæ* are connected to the *Cricoides* by Ligaments, which surround their Articulations with the Top of that Cartilage. Anteriorly, the Basis of each *Arytenoides* is fixed to one End of a ligamentary Cord, which, by its other End, is inserted about the Middle of the concave Side of the anterior Portion of the *Thyroides*. At their Insertions in the *Thyroides*, these two Ligaments touch each other; but a small Space is left behind them, where they are fixed in the two *Arytenoides*; and they seem, likewise, to have a small Adhesion to the Top of the *Cricoides*. This is what is called the *Glottis*.

Under these two ligamentary Cords there are two others, which run, likewise, from behind, forward. The Interstice between the superior and inferior Cords on each Side forms a transverse Fissure, which is the Opening of a small membranous Bag, the Bottom of which is turned outward, that is, toward the *Ala* of the *Thyroides*. These two *Sacculi* are the Ventracles mentioned by the Ancients, and restored by M. Morgagni, who has given an excellent Description of them. They are principally formed by a Continuation of the internal Membrane of the *Larynx*, and the inner Surface of their Bottom appears sometimes to be glandulous.

On the anterior Surface of the *Arytenoidæ* Cartilages there is a small Depression between the Basis and the convex upper Part. This Depression is filled by a glandulous Body, which not only covers the anterior Surface of each *Arytenoides*, but is, also, extended forward, from the Basis, over the posterior Extremity of the neighbouring ligamentary Cord. They are larger, and more sensible, in some Subjects than in others; and they are covered by the Membrane which lines the neighbouring Parts. These Glands were discovered by M. Morgagni.

I have already described the Ligaments which connect the *Epiglottis* to the Notch of the *Thyroides*, and to the Basis of the *Os Hyoides*. These two Ligaments, and a third, which ties the Basis of the *Os Hyoides* to the Notch of the *Thyroides*, form a triangular Space, filled with a cellular or pinguous Substance, and with small Glands.

The *Epiglottis* has, also, two lateral Ligaments, by which it is connected to the *Arytenoides*, all the Way to their Points or Cornua. It has, also, a membranous Ligament, which, running along the Middle of its anterior or concave Side, ties it to the Root or Basis of the Tongue. This Ligament is only a Duplication of the Membrane which covers the *Epiglottis*, continued to the neighbouring Parts. Lastly, there are two lateral membranous Ligaments belonging to it, fixed near the glandulous Bodies called *Amygdalæ*.

The *Epiglottis* is not only perforated by the regular Holes already mentioned, but has, likewise, a great Number of small irregular Scissures and Breaks, which are so many different *Lacunæ*, situated between its two Membranes, and filled with small Glands, the excretory Orifices of which are principally on the back Side of this Cartilage.

The *Larynx* gives Insertion to a great Number of Muscles, which may be divided into Common, Proper, and Collateral. The Common Muscles, according to the general Acceptation of the Term, are all those which move the whole Body of the *Larynx*, one Extremity of them being inserted in the other Parts; and these are four in Number, two on each Side, and are named

Sterno-thyroidæ,
Thyro-Hyoides, or *Hyo-thyroides*.

The Proper Muscles are those inserted wholly in the *Larynx*, and which move the Cartilages separately. These have been

divided

divided in various Manners, but may all be reduced to the following Pairs;

Crico-thyro-hyoidæi
Crico-arytenoidæi Laterales.
Crico-arytenoidæi Posteriores.
Thyro-arytenoidæi.
Arytenoidæi.
Thyro-epiglottici.
Aryteno-epiglottici.
Hyo-epiglottici.

By the Collateral Muscles, I understand those which are inserted by one Portion in the Larynx, without appearing to contribute any thing to the Motions of it. Of this Kind are the Thyro-pharyngæi and Crico-pharyngæi.

The Larynx may, also, be moved by Muscles which are not immediately inserted in it, but altogether in other Parts: Such are the Mylo-hyoidæi, Genio-hyoidæi, Stylo-hyoidæi, Omo-hyoidæi, Sterno-hyoidæi, and especially the Digastrici of the lower Jaw, by reason of their particular Adhesion to the Os Hyoides. It is, also, probable, that those Muscles of the Pharynx, which are inserted in the Basis Cranii, may, in certain Circumstances, move the Larynx in some small Degree.

The Sterno-thyroidæi are two long, flat, narrow, thin Muscles, like Ribbands, broader above than below, and situated along that Part of the Neck which lies between the thyroide Cartilage and the Sternum. They are covered by the Sterno-hyoidæi; and they cover the thyroide Glands, passing immediately before them.

Each Muscle is fixed, by its lower Extremity, partly in the superior Portion of the inner or back Side of the Sternum, partly in the Ligament and neighbouring Portion of the Clavicula, and partly in the cartilaginous Portion of the first Rib. Sometimes it runs a great Way down on the first Bone of the Sternum, and crosses the Muscle on the other Side. From thence it runs up, on the Aspera Arteria, close by its Fellow; passes before the thyroide Glands, over the cricoide Cartilage; and is inserted, by its upper Extremity, in the lower Part of the lateral Side of the thyroide Cartilage, and partly along that whole Side. I have found this Muscle double, one distinct Portion of it being inserted into the Basis, and the other laterally.

The Thyro-hyoidæi, or Hyo-thyroidæi, are two flat thin Muscles, lying close by each other, between and above the former. Each of them is inserted, by its upper Extremity, partly in the Basis, and partly in the neighbouring Part of the great Cornu of the Os Hyoides; and, by its lower Extremity, in the lower Part of the lateral Side of the Thyroide Cartilage, immediately above the superior Extremity of the Sterno-thyroidæus; and both this superior Extremity of the last-named Muscle, and the lower Extremity of the Thyro-hyoidæus, are, at their Place of Union, confounded a little with the Thyro-pharyngæus inferior.

The Crico-thyroidæi are two small Muscles, situated obliquely at the lower Part of the thyroide Cartilage. They are inserted, by their lower Extremities, in the anterior Portion of the cricoide Cartilage, near each other, and, by their superior Extremities, laterally in the lower Edge of the thyroide Cartilage, at a Distance from each other: By this oblique Situation they represent a Roman V.

Each of these small Muscles is, in a manner, double, its upper Extremity inserted in the thyroide Cartilage being, in some Subjects, very broad, and divided into two Portions, one anterior, and the other more lateral, and more oblique. They may, also, be easily separated into two distinct Muscles, whereof one may be called *Crico-thyroidæus anterior, five Internus*; the other *Lateralis, five Externus*.

The two Musculi Crico-arytenoidæi posteriores are situated posteriorly, at the large or back Portion of the Cricoides, filling almost the two longitudinal Surfaces of that Portion, and distinguished by the prominent Line between these two Surfaces already mentioned. Each of them runs up obliquely, and is inserted, by its upper Extremity, in the posterior Part of the Basis of the arytenoide Cartilage of the same Side near the Angle of that Basis.

The two Crico-arytenoidæi Laterales are small, and situated more laterally than the former. Each Muscle is fixed, by one End, to the Side of the broad Part of the Cricoides, and, by the other, to the lower Part of the Side of the neighbouring Arytenoides.

The two Thyro-arytenoidæi are very broad, each Muscle being situated laterally between the Thyroides and Cricoides. It is fixed, by a broad Insertion, in the Inside of the Ala of the thyroide Cartilage; and the Fibres, contracting from thence, run from before, backward; and from below, upward, towards the neighbouring arytenoide Cartilage, in which they are inserted, from the Glottis to the Angle of the Basis. In some Subjects, these Muscles cover almost both Sides of the Glottis.

The Arytenoidæi are small Muscles, lying on the posterior concave Sides of the arytenoide Cartilages. Dr. James Douglas, in the first Edition of his Treatise on the Muscles, divided them into two Kinds, one of which he called *Arytenoidæi majores*, and the other, *Arytenoidæi minores*; and it must be owned, that

there is some Variety in different Subjects. I shall here confine myself to what I have most frequently and most distinctly observed; and that is, that there are two Crucial Arytenoidæi, and one Transverse.

The crucial Muscles run each obliquely from the Basis of one arytenoide Cartilage, to the middle and upper Part of the other, the Left Muscle covering the Right, as is observed by M. Morgagni, in his first *Adversaria*.

I look upon these Muscles as superior Crico-arytenoidæi; because I have always found them partly inserted in the upper neighbouring Portion of the Cricoides. The Arytenoidæus Transversalis is inserted, more or less directly, by both Extremities, in the two arytenoide Cartilages; and this I look upon as the true Musculus Arytenoidæus.

The two Thyro-epiglottici cross the Thyro-arytenoidæi, being inserted in the inner lateral Part of the Thyroides, and laterally in the Epiglottis.

The Aryteno-epiglottici are small fleshy Fasciculi, each of which is fixed, by one Extremity, in the Head of one of the arytenoide Cartilages, and by the other in the nearest Edge of the Epiglottis.

I never had the Opportunity of examining the Hyo-epiglottici in very muscular Subjects; and, therefore, I am not sure, that the Fibres, which go from the convex Side of the Basis of the Os Hyoides, to the convex Side of the Epiglottis, are really fleshy.

The Larynx serves particularly to admit and let out the Matter of Respiration; and the Solidity of the Pieces, of which it is composed, hinders not only external Objects, but, also, any hard thing, which we swallow, from disordering this Passage. The Glottis, being a narrow Slit, modifies the Air which we breathe, and, as it is very easily dilated and contracted, it forms the different Tones of the Voice, principally by means of the different Muscles inserted in the Cartilages Arytenoidææ, to which the other Muscles of the Larynx, both proper and common, are Assistants.

The whole Larynx is, likewise, of Use in Deglutition, by means of its Connection with the Os Hyoides, to which the digastric Muscles of the lower Jaw adhere; which Muscles raise the Larynx, together with the Os Hyoides, every time we swallow.

The Facility of varying and changing the Tone of the Voice depends on the Flexibility of the Cartilages of the Larynx, and decreases in proportion as we advance in Age; because these Cartilages gradually harden and ossify, though not equally soon in all Persons; and this Change happens, not only to the Cartilago Thyroides, but also to the Cricoides and Arytenoides.

The Musculi Sterno-thyroidæi serve, in general, to pull down the thyroide Cartilage, and the whole Larynx along with it. They may, also, assist the Sterno-hyoidæi in its Actions, and compress the thyroide Gland. The Thyro-hyoidæi may, as Occasion requires, either draw up the Larynx toward the Os Hyoides; or draw that Bone downward toward the Cartilago Thyroides.

It is difficult to determine the Use of the Crico-thyroidæi, from their Situation. They may either pull the Cricoides obliquely backward, or the Thyroides obliquely forward; and, by this Action, the inferior Cornua of the Thyroides, and small articular Surfaces of the Cricoides, must slide upon each other.

Both the lateral and posterior Crico-arytenoidæi may separate the arytenoide Cartilages, and thereby open or dilate the Glottis; but they do not both perform this Action in the same manner; the lateral Muscles separate these Cartilages obliquely forward, and, at the same time, loosen or relax the Sides of the Glottis; but the posterior Muscles separate them obliquely backward, and, at the same time, stretch or extend the Sides of the Glottis; and, when both Muscles act equally, they separate the Cartilages directly.

The Thyro-arytenoidæi, acting together, draw both the arytenoide Cartilages forward, and, consequently, loosen the Glottis, and render it capable of the smallest Quaverings of the Voice. They may, also, probably compress the lateral Sinuses or Ventricles of the Larynx, and, also, the arytenoide Glands.

The Arytenoidæi bring the arytenoide Cartilages close together, and press them against each other; and, when the Cartilages are in this Situation, they may, at the same time, be inclined either forward by the Thyro-arytenoidæi, or backward by the Crico-arytenoidæi posteriores. By this means the Glottis, when shut, may be either relaxed or tense, and, in this last Case, it is entirely shut, as when we hold in our Breath, in straining.

The general Use of the Epiglottis is to cover the Glottis like a Penthouse, and thereby hinder any thing from falling into it when we eat or drink; and for this Purpose it is depressed. It also serves to hinder the Air, which we inspire, from rushing directly upon the Glottis; but, by splitting it, as it were, obliges it to enter it by the Sides, or in an oblique Course. The Muscles of the Epiglottis do not appear to be absolutely necessary for that Cartilage; for in Deglutition it may be sufficiently depressed by the Basis of the Tongue, and it may raise itself again by its own Elasticity. The Thyro-epiglottici and Aryteno-epiglottici may serve to shut any lateral Openings, that might remain when the

the Epiglottis is depressed by the Basis of the Tongue; and the Hyo-epiglottici may pull it a little forward in strong Respirations, as in Sighing, or Yawning. *Winslow's Anatomy.*

LASANON, *λάσανον*, is a Trivet for culinary Uses. But *Hesychius* explains it, a sort of Close-stool: And in *Hippocrates*, *Lib. de Superfuratione*, it seems to import a Chair, or Stool, contrived for a Woman in Labour to sit in, in such a manner, that the Weight of the Child, when born, may help to bring away the Secundines.

LASCIVUS is an Epithet in *Paracelsus* for the *Chorea Sancti Viti*, St. Vitus's Dance.

LASER. The Juice of the LASERPITUM. See SILPHIUM.

LASERPITUM.

The Characters are;

The Root is perennial, large, acrid, and lactescent; the Leaves are broad, large, and more or less lobated; the Petals of the Flowers are shaped like an Heart, expanded, narrow below, and broad above; the Top of the Ovary, below the Placenta, ends in Teeth, which sustain, like a short Calyx, a large white Placenta; the Seed is gibbous, furnished with four foliaceous Wings in longitudinal Directions, which are either flat or curled.

Boerhaave mentions sixteen Species of this Plant; which are,

1. Laserpitium; foliis latioribus, lobatis, nigrioribus; semine plano.

2. Laserpitium; foliis latioribus, lobatis. *Tourn. Inst.* 324. *Boerb. Ind. A.* 61. *Thapsia Officinarum*. *Chom.* 64. *Gentiana alba*. *Offic.* *Libanotis Theophrasti minor*. *Ger.* 857. *Emac.* 1010. *Park. Theat.* 931. *Raii Hist.* 1. 427. *Libanotis latifolia altera, sive vulgarior*. *C. B. P.* 157. *Libanotis Theophrasti quorundam, sive Seseli Ethiopicum*, *Matthiolo Cervicaria alba*. *J. B.* 3. 164.

THE LESSER HERB FRANKINCENSE OF THEOPHRASTUS.

It is found on the Mountains of *Switzerland*, and the *Pyrenees*, and flowers in *July*. The Root is said to be alexipharmic, and good in uterine Disorders. *Dale.*

3. Laserpitium; majus; Alpinum; foliis rotundioribus. *T.* 324.

4. Laserpitium; foliis amplioribus; semine crispo. *T.* 324.

5. Laserpitium; humilius; Paludapii folio; flore albo. *T.* 325.

6. Laserpitium; humilius; Paludapii folio; flore purpurascence. *T.* 325.

7. Laserpitium; foliis angustioribus, saturatius virentibus. *M. U.* 28. 64. *Laserpitium lobis angustioribus, saturate virentibus & lucentibus, semine crispo*. *M. U. Elench. Tab. IV.* *Laserpitium, lobis angustioribus saturate virentibus*. *M. H.* 3. Sect. 9. *Tab. XIX. No. 8.* *Laserpitium, e regione Massiliae allatum*. *J. B.* 3. 2. 137. *Laserpitium Gallicum*. *C. B. P.* 156. LASERWORT.

It is cultivated in Gardens, and flowers in the Summer. The Root is used, which is heating, and recommended against Sugillations, strumous Swellings, Tubercles, ischiadic Pains, and Excrescences about the Anus. It is said to repress Venereal Inclinations. *Dale.*

8. Laserpitium; lobis angustioribus, dilute virentibus, plurifariam divisis. *M. U.* 64. 28. *M. Bloef.* 278. *M. H.* 3. 321.

9. Laserpitium; folio angusto, multifido; flore albo; alis seminum planis.

10. Laserpitium; latifolium; non sinuatum. *T.* 324.

11. Laserpitium; angustifolium; non sinuatum, semine crispo.

12. Laserpitium; selinoides; semine crispo. *T.* 324.

13. Laserpitium; angustifolium; umbella contracta & concava. *T.* 324. *Schol. Bot.* 167.

14. Laserpitium; tenuifolium; lobis obscure virentibus. *Plukn. Phyt.* 198. *Fig.* 4.

15. Laserpitium; foliis angustis, nigricantibus, multifidis; flore purpurascenti, alis seminum planis.

16. Laserpitium; Orientale, folio mei; flore luteo. *T. C.* 23. *Boerb. Ind. alt. Plant. Vol. I. p.* 61.

LASION, *λάσιον*, in *Hippocrates*, *Prædict. Lib. 2.* signifies Rough, or Hairy. *Lasion* is expounded, by *Galen*, a Linen Cloth, that is, one which is rough and villous.

LASSITUDO. Lassitude. See COPUS.

LASTAURUS. One abandoned to Venereal Pleasures. *Castellus* from *Casp. Reyes*.

LASUR, in *Paracelsus*, is what he calls the transplanted Extract from Silver.

LATER. A Brick. These are of some Use in Medicine, being frequently heated, and applied to various Parts; or they are laid on Cataplasms, in order to preserve a perpetual Heat.

The Oil of Bricks, otherwise called *Oleum Philosophorum*, is thus prepared:

Let hot Bricks be quenched in Oil of Olives, until they have imbibed all the Oil; and then let them cool, and the Oil be drawn from them by a Retort, and separated from the Spirit.

LATERA-LICTRO. Quicksilver. *Rulandus*.

LATERALIS MORBUS. The Pleurisy.

VOL. II.

LATER'UM. A Lixivium. *Rulandus*.

LATHYRIS. A Name for the *Tithymalus*; *latifolius*, *Cataputia diffus*.

LATHYRUS.

The Characters are;

The Ovary, cover'd with a membranaceous Vagina, becomes a round or compressed Pod, with sometimes a cylindrical, and sometimes angular Seed. It hath a compressed Stalk with a raised Rib, and a leafy Border; and has only one Pair of Leaves, which terminates in a Tendril.

Boerhaave mentions nineteen Species of this Plant; which are,

1. *Lathyrus latifolius*. *C. B. P.* 344. *Tourn. Inst.* 395. *Boerb. Ind. A.* 2. 41. *Lathyrus*. *Offic.* *Lathyrus major latifolius*. *Ger. Emac.* 1229. *Raii Hist.* 1. 894. *Synop.* 3. 319. *Lathyrus major perennis*. *Park. Theat.* 1061. *Lathyrus major latifolia, flore majore, purpureo, speciosior*. *J. B.* 2. 303. *Clymenum Dioscoridis quibusdam*. PEAS EVERLASTING, or CHICHLING VETCH.

It grows in Woods and Thickets, and flowers in the Summer. The Juice expressed from the whole Plant, together with the Root, is used in Medicine. This, when drank, is said to be effectual against Vomiting of Blood, and the *Cæliac* Passion, and to restrain Hemorrhages of the Uterus, and from the Nose. The Leaves and Pods, bruised, and applied to Wounds, promote their Cicatrization.

2. *Lathyrus*; *latifolius*; minor; flore majore. *Ind.* 158.

3. *Lathyrus*; major, *Narbonensis*; angustifolius. *J. B.* 3. 304.

4. *Lathyrus*; distoplatyphyllos; hirsutus; mollis; magno & peramæno, flore odoro.

5. *Lathyrus*; *Tingitanus*; siliquis Orobi; flore amplo ruberrimo. *M. H.* 2. 55.

6. *Lathyrus*; arvensis; repens; tuberosus. *C. B. P.* 344. *Terræ Glandes*. *Dod.* p. 550. *Arachidna Theophrasti*. *Col.* 1. 304, 305. *Descr.* 301. *lc.* *Glans Terræ & Pseudo-apios*. *H. Eytt. Æst.* o. 13. *F.* 13. *Fig.* 5. *Chamæbalanus leguminosa*. *J. B.* 1. 17. 324.

Fuchs, being willing to accommodate himself to *Dioscorides*'s Description of the Apios, would have the Leaves of this Plant resemble those of Rue. I believe *Pena* and *Lobel* have confounded our *Lathyrus* with the *Bulbocastanum*; for they say not only, that its Roots are astringent, and have the Taste of Chestnuts, but, also, that it is found at *Colmars* in *Provence*. Now I have found only the *Bulbocastanum* about this Town, the Roots of which the People eat raw, or boiled, and call it *Pissagous*. *Martyn's Tournesort*.

7. *Lathyrus*; sylvestris & dumetorum flore luteo. *Boerb. Ind. A.* 2. 42. *Lathyrus sylvestris, flore luteo*. *Park. Theat.* 1062. *Ger. Emac.* 1231. *Lathyrus luteus sylvestris dumetorum*. *J. B.* 2. 304. *Raii Hist.* 1. 894. *Synop.* 3. 320. *Lathyrus sylvestris luteus foliis Vicia*. *C. B. P.* 344. *Tourn. Inst.* 395. EVERLASTING TARE.

This grows in Woods and Thickets, flowering in *June*. The Herb is used as an Astringent. *Dale* from *Monti*.

8. *Lathyrus*; Hispanicus flore luteo.

9. *Lathyrus*; angustifolius; leptomacrolobus; semine rotundo; flore rubello. *M. H.* 2. 55.

10. *Lathyrus*; latifolius; flore gilvo.

11. *Lathyrus*; angustifolius; siliqua alata; vexillo cæruleo, alis variegatis. *Ind.* 159.

12. *Lathyrus*; sativus; flore & fructu albo. *C. B. P.* 343. *Lathyrus, sive Cicercula*. *Dod.* 522.

13. *Lathyrus*; angustifolius; semine maculoso. *C. B. P.* 344.

14. *Lathyrus*; angustifolius; semine maculoso, minori.

15. *Lathyrus*; folio tenuiore; floribus rubris. *J. B.* 2. 308.

16. *Lathyrus*; angustifolius; semine maculoso, fusco minore.

17. *Lathyrus*; ἀμφικαρπός; supra & infra terram siliquas gerens. See ARACHIDNA.

18. *Lathyrus*; Orientalis; flore vix conspicuo.

19. *Lathyrus*; luteus; latifolius. *Bot. Monsp.* *Boerb. Ind. alt. Plant. Vol. 2. p.* 41.

LATHYRUS, VICIOIDES. A Name for the *Clymenum Hispanicum*; flore vario; siliqua plana: And for the *Clymenum*; *Hispanicum*; flore vario, siliqua articulata.

LATIBULUM is used by *Theodorus Craanen* for the Fomes, or Matter, exciting a Fever.

LATICA. A continual quotidian Fever, without any Intermission.

LATISSIMUS DORSI. This is a broad, thin, and mostly fleshy Muscle, lying between the Axilla, where it is very narrow, and the Back, by which it expands itself by radiated Fibres, both in Length and Breadth, from the Middle of the Back, all the Way to the lower Part of the lumbar Region; and from this Situation it has its Name.

Its Insertions, without reckoning that in the Arm, are partly tendinous, and partly fleshy. In the first Place, it is sometimes, but not always, fixed in the inferior Costa of the Scapula, near the

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the Angle, by a Fasciculus of fleshy Fibres. In the next Place, it is fixed by an Aponeurosis, in the spinal Apophyses of the six, or seven, and, sometimes, eight lowest Vertebrae of the Back, in those of all the Vertebrae of the Loins, in the superior Spines and lateral Parts of the Os Sacrum, and the external Labium of the posterior Part of the Os Ilium.

Besides all this tendinous Course, it is inserted by fleshy Digitations in the last four false Ribs. These Digitations cover those of the Serratus inferior Posticus, and mix with those of the Obliquus externus Abdominis, there being sometimes Fasciculi of Fibres common to both Muscles. It is not always fixed to the lowest false Rib; and sometimes that Insertion is by a particular kind of Aponeurosis, which is pretty strong. I have, also, seen it fixed to the first false Rib by a very small, thin Digitation.

From all these Insertions the Fibres of this Muscle tend in different Directions to the Arm. At the middle of the Back they are almost transverse, and they become more and more oblique, as they descend. Towards the Region of the Loins their Obliquity decreases again, and on the Ribs they are almost longitudinal. As they run up, they contract in Breadth, and under the Axilla they terminate in a flat Tendon, turned almost in the same manner as that of the Pectoralis major, but more simply, and without any Adhesion between the two Planes. The upper Edge of this flat Tendon is turned inward, answering to the lower or lateral Part of the Muscle; and the lower Edge, which hides the other by crossing a little over it, answers to the upper or posterior Part of the Muscle.

The Tendon, thus formed, is fixed in the Os Humeri, a little below the small superior Tuberosity, in the inner Edge of the bony Groove or Channel, the Cavity of which it also lines, by a transverse smooth Expansion, nearly as is done by the Tendon of the Pectoralis Major from the other Edge; so that these two Tendons, meeting by their Extremities in the Groove, appear, in some measure, to be continued with each other: I say, in some measure; because the Tendon of this Muscle is not so broad as that of the Pectoralis Major.

The Tendon of the Latissimus Dorsi is accompanied by another flat Tendon, belonging to the Teres Major; but it is inserted higher up than that other Tendon, and nearer the Channel, so that the lower Edge of the Tendon of the Latissimus Dorsi may be said to encroach on the upper Edge of the other Tendon. These two Tendons communicate by some collateral Fibres, and are both strengthened by the same ligamentary Frænum, which runs down from the Insertion of the Subscapularis, below that of the Teres major.

This Muscle is covered by the Trapezius, from the sixth to the last Vertebra of the Back, and covers the Serratus inferior Posticus. Its Aponeurosis is, at first, narrow, but increases in Breadth as it descends between the Vertebrae, and Os Ilium. It adheres strongly to that of the Serratus inferior Posticus, and still more to the Transversalis Sacro-lumbaris and Longissimus Dorsi. This Muscle, together with the Pectoralis Major, forms the Cavity of the Axilla.

The Latissimus Dorsi serves, in general, to bring down the Arm, when raised; and this it does principally by its inferior Portion. By the same Portion, and by the Connection of the Scapula with the Os Humeri, it serves to depress the Shoulder, or to maintain it in that Situation, against any Force that endeavours to raise it; as when we lean upon the Elbow, in Sitting, or walk upon Crutches.

By its dorsal Insertion, by the Passage of its Tendon on the Inside of the Os Humeri, and by its Insertion in the fore Side of that Bone, it may turn the Arm round its Axis, called Rotation, by Anatomists; as it happens, when, having bent the fore Arm, we turn it behind our Back.

By its Insertion in the Crista of the Os Ilium, and in the false Ribs, it becomes necessary to raise the Head laterally on one Side, when we lie on the other: For the Shoulder being then depressed, and brought near the Thorax, the Clavicle becomes the fixed Point of one or two of the Muscles, which raise the Head in this Situation. Any Person may make the Experiment in Bed, by lying at full Length on his Side; for if, when he raises his Head in this Posture, he lay his Hand on the anterior Edge of this Muscle, he will find it considerably stretched, and, also, that this Tension ceases, whenever he ceases to lift his Head.

The Connection of this Muscle with the false Ribs is the Cause of that Uneasiness which we find in breathing, when the Arm is pulled strongly downward, to press upon any thing; as when we seal a Letter, or lean upon a short Cane, the fore Arm being extended.

The small Portion, inserted in the inferior Angle of the Scapula, may be an Assistant to the Teres Major.

This Muscle sustains the Weight of the whole Body, when, with the Arms raised, we hang by the Hands; as when we grasp the Branch of a Tree, in climbing.

It performs the same Office, when we either sit or stand, with the whole Arm more or less extended horizontally, and press the

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Hand from above downward, against any Resistance; as when we support ourselves in this Situation, by a very long Cane grasped by the Hand; or lay hold of the upper Part of an Halbert, and press the lower End strongly against the Ground.

These last three Uses cannot, however, be well executed by this Muscle alone, without the Assistance of the Pectoralis Major. *Winslow's Anatomy.*

LATON. Brass. It has some other alchemistical Significations, of very little Importance to Medicine.

LATUS PULSUS is a broad Pulse, that is, when the Artery is preternaturally distended at every Pulsation.

LATÆ PUSTULÆ are Pustules, which spread wide at the Base, without rising to a Head.

LAVACRUM. A Bath.

LAVAMENTUM. A Fetus, or Fomentation. *Blancard.*

LAVANDULA.

The Characters are;

The Galea of the Flower is roundish, erect, and generally bifid; the Beard is divided into three almost equal Segments: The Whorles of the Flowers are closely collected into thin slender Spikes at the Tops of the Stalks and Branches: The Plant has a singular fragrant Smell. *Boerb. Ind. alt. Part 1. p. 152.*

Boerhaave mentions eight Species of this Plant; which are,

1. *Lavandula; latifolia; Indica; subcinerea; Spica brevior.* *H. R. Par. T. 198.*

2. *Lavandula; latifolia. C. B. P. 216. Tourn. Inst. 198. Boerb. Ind. alt. 152. Lavendula. Offic. Lavendula major five vulgaris. Park. Theat. 72. Raii Hist. 1. 512. Lavendula flore caruleo & albo. Ger. 467. Emac. 583. Pseudo-nardus, quæ vulgo Spica. J. B. 281. Spica Officinarum German.* **GREATER LAVENDER.**

This has broader Leaves than the *Lavandula; angustifolia*; but not quite so white or hoary: The Flowers grow upon taller Stalks, and the Spikes are rather larger; but each particular Flower is less. It is planted in Gardens; but is seldom met with in *England*.

It is much of the Nature of the *Lavandula; angustifolia*; but is never prescribed in the Shops. *Miller's Bot. Offic.*

The Herb and Flowers are in Use, and are of fine Parts, and friendly to the Head and Nerves: It is principally used in Catarrhs, Palsies, Convulsions, the Vertigo, Lethargy, and Trembling of the Limbs; for provoking Urine, and the Menfes, and expelling the Fœtus; and for the Gripes, proceeding from Flatulencies: Outwardly it is of Service in Lixivia, for the Head and Members, and in Masticatories. *Dale from Schroder.*

3. *Lavandula; angustifolia. C. B. P. 216. Tourn. Inst. 198. Boerb. Ind. alt. 152. Spica Lavandula vulgaris. Offic. Lavendula minor five Spica. Ger. 468. Emac. 584. Raii Hist. 1. 513. Park. Theat. 73. Pseudo-nardus quæ Lavendula vulgô. J. B. 3. 282.* **COMMON LAVENDER or SPIKE.**

The common Lavender is a shrubby Plant, abiding many Years, having a great many woody Branches, thick set with long, hoary, narrow Leaves, two at a Joint, which are round-pointed, and broadest at the End; from among these spring several square Stalks, having but few Leaves upon them, and those narrower than the lower, bearing, at the Tops, long verticillated Spikes, of blue, galeated, and labiated Flowers, set in hoary Calyces: It grows wild in the Southern Parts of *France* and *Spain*; but is cultivated with us only in Gardens, and flowers in *July*. This is the Lavender which grows every-where in our Gardens, and is commonly used, the broad-leaved being to be found only in some Gardens of the Curious; though *Gerard*, *Parkinson*, and even *Mr. Ray*, took the broad-leaved to be our common Lavender.

Lavender is cordial and cephalic, good for all Diseases of the Head and Nerves; helps Convulsions, the Palsy, and Weakness of the Limbs; is good to expel Wind from the Stomach and Bowels, and prevents the Colic. It is outwardly used in warming and strengthening Fomentations. *Miller's Bot. Offic.*

SPIRITUS LAVENDULÆ COMPOSITUS.

Compound Spirit of Lavender.

Take Flowers of Lavender, one Gallon; pour upon them four Gallons of *French Brandy*, and thereunto add fresh Flowers of *Sage*, *Rosemary*, and *Betony*, of each one Handful; of *Borage*, *Bugloss*, *Lilies of the Valley* and *Cowslips*, of each two Handfuls; of the Leaves of *Baum*, *Feverfew*, and of the *Orange-tree*, fresh-gather'd, or the Flowers of *Stœrchas*, *Oranges*, and *Bay-berries*, of each one Ounce: Digest these together, and draw off in *Balneo Marie*, two Gallons and an half: Then add of the outer Bark of *Citrons*, and of *yellow Sanders*, of each six Drams; of *Cinnamon*, *Nutmegs*, and *Mace*, of the lesser *Cardamom-seeds*, and *Cubebs*, of each half an Ounce; of *Aloe-wood*, one Dram: Digest these for twenty-four Hours, and filtre the Spirit; then, if it be thought proper, add of *Musk*, *Ambergise*, and *Saffron*, of each half a Scruple; red Roses dried, and

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red Sanders, of each half an Ounce. Let the Species be tied up in a thin Bag, and suspended in the Spirit.

The Sweets are here left at Discretion, because in many Purposes they are disagreeable to the main End of the Composition; proving to some particular Constitutions the opposite to a Cordial, or a Cephalic, which this Medicine is in the highest Degree. This has long been celebrated in all nervous Cases, and is now greatly used in the Shops. In the Decays of Age, and convulsive or apoplectic Shocks, such as bring on Palsies, and Loss of Memory, this is of very good Service, and has been so much remarked for such Efficacy, as almost universally to obtain the Name of Palsy-drops: It may be taken from twenty to one hundred Drops at a time: The best way is upon Sugar, and letting it gradually dissolve in the Mouth; because, by that means, it soaks more immediately into the Nerves, and has a much greater Effect on the Spirits, than when it is diluted by any Vehicle, and carried with it into the Stomach.

4. Lavandula; angustifolia; flore albo. C. B. P. 216.
5. Lavandula; folio dissecto. C. B. P. 216.
6. Lavandula; folio dissecto; flore albo.
7. Lavandula; folio longiori, tenuius & elegantius dissecto. T. 198. *Commelin. Rar.* 27.
8. Lavandula; maritima; Canariensis; spicâ multiplici, cœruleâ. *Plukn. Alm. Phyt. T.* 303. *Fig. 5. Boerb. Ind. alt. Plant. Vol. 1. p.* 152.

The *Historia Plantarum*, ascribed to *Boerhaave*, gives the following Account of Lavender. The Plant takes its Name *a lavando*, from Washing or Bathing, because it was used in Baths, on account of its Fragrancy; or because all the Species were Ingredients in Lyes, in order to give a sweet Smell to Linen; or enter'd the Composition of the best *Lavacra*, or Washes for the Face, in order to render it shining and fragrant: It is, also, called *Spica*, Spike; because, among all the verticillated Plants, this alone bears a Spike: Many call it *Nard*; and, perhaps, this is the true Nard of the Antients, which I shall not dispute, since we cannot arrive at any Certainty in the Matter.

It is the chief of all the cephalic Plants, being very comfortable and reviving, under Faintings and Languishments of the Brain and Heart; whence it is very proper in Lethargies, Apoplexy, Palsy, and Epilepsy. Preparations of it are a simple Water, Spirit, and a precious Oil: It is recommended in Disorders incident to Virgins. The Conserve of the Flowers is a most noble Remedy against cephalic Diseases, raising the cold and languishing Spirits; but, in hot Disorders, it is prejudicial. The Plant is an Emmenagogue, and a potent Promoter of the Lochia, after the Birth. To prepare the Conserve, gather the Flowers in a fair Morning, and bruise them with an equal Quantity of dry Sugar, and reserve the same in Gallipots. The Plant being an Evergreen, it is best to gather it when fresh; for then it has the greatest Virtue. All the Lavenders have a most fragrant, sweet, and reviving Smell, but a very bitter and penetrating Taste. The Oil made of this Plant is called Oil of Spike; but the Shops generally make it with Turpentine, impregnated with the Flowers; and the Turpentine has indeed the Smell, but not all the Virtue, of the Flowers communicated to it; and, therefore, should only be called *Oleum Terebinthinæ Spicatum*: But the true Oil of Spike should be made only of the Flowers with Water. That Lavender is far more potent and penetrating, and of greater Efficacy, in cephalic, uterine, and nervous Disorders, than the Flowers of Rosemary, appears from the Oil of it distilled, and from the Salivation excited by the Leaves and Flowers in chewing; whence it is much commended in soporific and catarrhus Disorders. Lavender, given in a Phrensy, proceeding from an Inflammation, infallibly destroys the Patient; but it is good for vertiginous old Persons, and Distempers owing to Dulness, and want of Spirits.

That Sort of Epilepsy, which is caused by a disorder'd Impetus of the nervous Fluid, is cured by the Water of the Flowers of Lavender; but this antiepileptic Virtue is utterly lost in the Decoction or Extract.

If either a Palsy, Lethargy, or Vertigo, arise from a cold languid Cause, the essential Oil of Lavender is a most excellent Remedy.

Lavandula; foliis crenatis. A Name for the *Stachas*; *folio serrato*.

LAVARETUS. A River Fish, somewhat like a Trout, found in the Rivers about *Lyons*, and the Lakes of *Savoy*. *Lemery* recommends it in Disorders of the Breast, and for a Consumption.

LAVARONUS. A Sea Fish, which is very like the *Lavaretus*, found in the *Mediterranean Sea*, and called, also, *Cabassonus Massiliensis*, and *Capassonus Genuensis*. *Lemery* informs us, that it is good for the Stomach, restorative, and nourishing. Certain small Stones are found in the Head, which, taken powder'd, are recommended as aperitive, and good for the Gravel.

LAVATERA takes its Name of the Physician *Helveticus Lavaterus*, the Friend of Monsieur *Tournefort*, upon which account *Tournefort* so intitled it.

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The Characters are;

The Leaf, Flower, Style, and Cup of the Flower, have the Appearance of a Mallow: The Style becomes a Fruit, which is armed in Front with a hollow Shield; the Seeds, which are shaped like a Kidney, growing to the inner Part.

The Species are;

1. Lavatera; folio & facie Althææ. *Tourn.*
2. Lavatera; folio & facie Althææ; flore albo.
3. Lavatera; Africana; flore pulcherrimo. *Boerb. Ind. Miller's Dictionary, Vol. 1.*

LAVATIO. Bathing; or a Bath.

LAUCANIA, *λαυκάνια*, or *λευκάνια*. The Throat, or Oesophagus.

LAUDANUM. This seems to be a barbarous Word, introduced by some of the enthyfiastical Chymists, derived from *Laus*, Praise, and importing the Medicine, thus call'd, to be worthy of Praise. The Word is generally apply'd to Preparations of Opium, either in a liquid, or solid Form. The *Laudanums*, directed in the College Dispensatory, are; the *Laudanum*, the *Laudanum liquidum Sydenhami*; and the *Laudanum liquidum Tartarizatum*.

The *Laudanum*, commonly called the *London Laudanum*, is thus prepared.

Take of Theban Opium, extracted with equal Parts of Spring-water, one Ounce; of Saffron, extracted in the same manner, one Dram and an half; of Castor, one Dram: Let all these be dissolved in a Tincture made with half an Ounce of the Species *Diambæ*, without the Perfumes, and Spirit of Wine; and put into it ten Drops of the Oil of Nutmegs: Lastly, evaporate the Whole into a Mass over a Bath-heat.

It may be given from one to four Grains, either in a Pill, or dissolved in a Draught. Many prefer this to any liquid Form, because the Dose cannot so easily be determined by so many Drops, as by so much Weight; for Drops may contain more or less, according to the Shape of the Phial they are dropt from, and the Slowness of their Drain; besides the Uncertainty of a Menstruum sustaining just such a Quantity of Opium. This Medicine is very ready to grow too dry in the Shops, and, also, mouldy; both which may be prevented by a very small Portion of Salt of Tartar in its Composition, and proportioning the Dose so much larger accordingly. This is what is almost always ordered in the present Practice; and, therefore, the Shops are never without it. The *Laudanum liquidum Sydenhami* is described under the Article **DYSENTERIA**.

Laudanum liquidum Tartarizatum, tartarized liquid Laudanum, is thus prepared.

Take of Opium, two Ounces; of Saffron, one Ounce; of Cinamon, Cloves, Mace, Nutmegs, and Aloes-wood, each one Dram; Tincture of the Salt of Tartar, two Pints: Digest for some Days, then strain the Liquor, and evaporate it to half its Quantity.

This is among *Shipton's Additamenta* to the last College Dispensatory, and is by many esteemed for the Tartar, which is judged to open the Body of the Opium, so that it more freely gives its Tincture, and makes it not so adhesive and agglutinating. It, also, differs little from what *Wilson* has in his Course of Chymistry.

A great Variety of Laudanums are delivered by different Pharmaceutic Writers; and *Quincy*, a good Judge of Compositions, gives us the following *Laudanum Balsamicum*, Balsamic Laudanum.

Take of Opium, in Extract, two Ounces; Liver of Sulphur, four Ounces; Extract of Saffron, and Liquorice, of each one Ounce; Flowers of Benjamin, half an Ounce; Balsam of *Peru*, two Drams: Mix them by a very gentle Warmth, so as just to stir in the Flowers of Benjamin, in a clean Pan-kin. If the Extracts are too soft, boil or simmer them up a little higher, before the Benjamin and Balsam of *Peru* are put in.

This, says *Quincy*, was communicated to me by a Gentleman of great Worth and Ingenuity in the Study of Medicine, tho' he never made it his Practice; upon whose Recommendation I first try'd it, and have been encouraged by its great Success to use it many Years. I have known it give Liberty of Breath to asthmatic Persons, who could not be trusted with any other Kind of Opiates; and enabled some Persons to pass their Winters here in Town with Comfort, who, without it, would have been forced to fly into the Country for Breath. And, besides the Service it does to the Lungs, further than the Good it infallibly procures as an Opiate, it is very efficacious in raising a Diaphoresis; and by that means breathes out a great deal from the Muscles, and remote Parts, which would occasion rheumatic and arthritic Pains, with

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many other bad Symptoms. Its Dose is from one to ten or twelve Grains.

LAUDANUM LIQUIDUM, CUM CAMPHORA : *Liquid Laudanum, with Camphire.*

Take of the best Opium, four Ounces ; put it into a Matrafs, and pour upon it, of Water, eight Pounds : Place it in a digesting Furnace, and keep it scalding hot for three Days ; run it thro' a Flannel, and press out all the Liquor, which evaporate to two Pounds, and put by in a Bottle.

Put of choice *English* Saffron, into a Matrafs, one Ounce ; and pour upon it tartarized Spirit of Wine, six Ounces : Digest them in a gentle Heat, till the Saffron looks pale. Into another Matrafs put of Cinnamon, one Ounce ; of Cloves, two Drams ; Pimento and Ginger, of each one Dram : Pour upon them, also, Spirit of Wine tartarized, six Ounces ; and digest for two or three Days. Into a fourth Matrafs put half an Ounce of Camphire, moisten'd with a little of the tartarized Spirit of Wine ; and let them digest, till the Camphire is dissolved : Press the Tinctures of Saffron and Spices thro' a Flannel, and mix them with the Dissolution of Opium ; and pour all into the Matrafs, with the dissolved Camphire : Let them stand two or three Days in a gentle Heat, and decant for Use.

This is an excellent Diaphoretic, because the Camphire exerts itself that way. Its Dose is from ten to forty Drops.

A pectoral, sudorific, liquid Laudanum is made in the following manner.

Take of Soap of Tartar, four Ounces ; Extract of Opium, two Ounces ; Saffron, half an Ounce ; Ginger, two Drams : Beat them in a Mortar ; and add Balsam of Sulphur, anisated, two Ounces : Grind them till they are well united ; put them into a Matrafs, and pour upon them, of Sal Volatile Oleosum, half a Pound ; and of rectified Spirit of Wine, two Pounds : Let them digest forty-eight Hours in a gentle Heat, often shaking the Matrafs ; then add of strong distil'd Vinegar, four Ounces ; shake the Vessel, and they will ferment a little : When that is over, close the Matrafs again ; and let it stand three Days and Nights, in a gentle Sand-heat, shaking it as before : When settled, decant the Clear, filtre the Sediment, and put them together into a Bottle.

This is the nearest of any liquid Form to the *Laudanum Balsamicum* ; and, therefore, may be prescrib'd in all the like Intentions, where the Patient cannot take a Pill or Bolus ; but, for want of Acquaintance with it, this is not in Prescription, or made in the Shops. Its Dose is from ten to fifty or sixty Drops.

Laudanum liquidum, cum Sale Volatili Oleoso, liquid Laudanum, with Sal Volatile, may be thus prepared.

Take of Opium, in Extract, four Ounces ; put into a Marble Mortar ; grind it with Tincture of Tartar, half a Pound, which must be put to it by little at a time ; grind them, till the Opium is well mixed with the Tincture of Tartar ; then put them into a Matrafs, and add to them of Sal Volatile Oleosum, one Pound ; upon which drop, of sweet Spirit of Nitre, half a Dram ; shake them well together, which will raise a little Fermentation : When that is over, make a circulating Vessel of the Matrafs ; lute the Juncture well with the Bladder, and set in a gentle Heat of Digestion six Days, shaking it about every Day ; then let it settle, and decant into a clean Vessel, which keep well stop'd for Use.

This is more carminative than any of the other Laudanums, and is most agreeable, where there is any Doubt of the Efficacy or Success of an Opiate, being admirably guarded against any Inconvenience. It may be taken from ten to thirty or forty Drops.

LAUDANUM LIQUIDUM, CUM SPIRITU NITRI DULCI : *Liquid Laudanum, with dulcified Spirit of Nitre.*

Take of the best Opium, two Ounces ; which slice, and put into a Matrafs with Saffron, one Ounce ; add to them sweet Spirit of Nitre, one Pound ; invert into the Mouth of the Matrafs another Glas ; lute it, and set it in Digestion five Days, shaking it about every Day ; then let it cool, and drop into it, by degrees, of Sal Volatile Oleosum, an Ounce and an half : When the Fermentation is over, stop and lute it up again, and let it stand three Days longer in Digestion ; then let it cool ; set it inclining to settle ; and then gently decant it into a Phial for Use.

If to this be added, of Juniper-berries, two Ounces, it will be yet more carminative. This is preferred by some as a most certain and excellent Anodyne, and great Expeller of Wind ; and it seldom or never offends the Stomach or Bowels, as many other Preparations of Opium do. It may be given to thirty Drops in a Dose.

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LAUDANUM LIQUIDUM, CUM SUCCO CYDONIORUM : *Liquid Laudanum, with Juice of Quinces.*

Take of Opium, two Ounces ; *English* Saffron, one Ounce ; and of the Juice of Quinces, a Pound and an half : Let the Opium be thin sliced, and with the Saffron be put to the Juice of Quinces in a Glas Body ; some add Yeast of Ale to ferment it : Set them in a gentle Heat of Sand, to digest till the Fermentation is over, and the Saffron subsides : Then express the Juice, and let it stand to settle ; when it is settled, pour it off by gentle Inclination : Put the Liquor into a Matrafs ; and add to it two Ounces of Cinnamon ; of Cloves, one Ounce and an half ; and of *Jamaica* Pepper, one Ounce : Let them be bruised, and put into the Liquor to stand in Digestion fourteen Days : Then again express the Juice, gently evaporate it to a due Consistence, and put it up for Use. Its Dose is from ten to forty or fifty Drops.

This very much resembles the Laudanum of *Helmont*, of which Mr. Boyle informs us, in the *Philosophical Transactions*, there are two Sorts ; the one used by the elder *Helmont*, the other by his Son. The former was a great Secret, communicated to me (says Mr. Boyle) by an expert Chymist ; which, because I have not Leave to publish, meeting with F. M. Baron Van *Helmont*, Son to the famous *Johannes Baptista*, I obtained from him some Directions about the Laudanum he uses ; which, tho' he confessed, and I soon perceived to be differing from his Father's, yet he seemed to think it not inferior, and more parable.

Take of Opium, a quarter of a Pound ; the Juice of Quinces, four Pounds at least. The Opium being cut into very thin Slices, and then, as it were, minced to reduce it into smaller Parts, is to be put into, and well mixed with the Liquor, first made lukewarm, and fermented with a moderate Heat for eight or ten Days, rather more than less : Then filtre it, and, having infused in it of Cinamon, Nutmeg, and Cloves, of each an Ounce, or an Ounce and an half, let them stand three or four Days more ; if it be a full Week, it may be so much the better : Then filtre the Liquor once more, having let it boil a Warm or two, after the Spices have been put in. This being done, evaporate away the superfluous Water, to the Consistence of an Extract, or to what other Consistence you please. Lastly, incorporate very well with it, two Ounces of the best Saffron reduced to fine Powder, or as much Extract as can be obtained from that Quantity of Saffron.

According to the Consistence you desire to have your Medicine of, you may order it so, as either to make it up into a Mass of Pills, (in which Form I have caused it to be given) or keep it in a liquid Form ; but, in this latter Case, the Evaporation must have been made more sparingly, that after the putting in of the Saffron, or its Extract, it may not grow too thick. In this Form the Dose may be from five or six Drops, to ten or fewer, according to Circumstances ; and of the Pills, a somewhat less Quantity is required.

LAUDANUM MERCURIALE PARACELSI.

Take any Quantity of Virgin Mercury, or of Mercury well depurated by Trituration with Vinegar and Salt, or with a Lixivium. Pour upon this a sufficient Quantity of rectify'd Spirit of Nitre, to dissolve it ; then evaporate the Spirit of Nitre, as in making the red Sublimate of Mercury, with *Aqua-fortis*. Thus you will obtain a Precipitate of the Colour of red Poppy-flowers : Pour upon this Precipitate a sufficient Quantity of Alcohol, to rise three Fingers-breadth above it ; and digest it for forty Days, or a Philosophical Month, and then the Spirit of Wine will become mucilaginous : Upon this Appearance, gently decant the Spirit of Wine, and draw off the most spirituous Part from a Cucurbit fitted with an Head ; an oleous Mass will remain in the Bottom of the Vessel, which distil in a Retort ; thus a Part of the Mercury will be revived, and a Portion of it will be pass'd over in the Form of Oil.

Take of this Oil, ten Parts ; and of Crocus Solis, (Saffron of Gold) one Part : Digest them till the Oil becomes as red as Blood, which then decant, and place it in the Heat of a Philosophical Furnace, inclosed in a Glas Vessel, hermetically sealed, till they unite into a fix'd Tincture.

The Dose is from one Grain, to three at most. *Collect. Chym. Leydens. C. 276.*

LAUDINÆ, in *Poterius*, are Pills, in which Opium is a principal Ingredient.

LAVENDULA. See LAVANDULA.

LAVER. A Name for the *Betabunga*, Brook-lime. *Blancard.*

LAVIGNON. A small Sea Shell-fish, about the Size of the Mussel. The Fish is esteemed aperitive. The Shell is used in the same Intentions as Crabs-eyes.

LAVIPEDIUM. A Bath for the Feet.

LAURAX. The same as LABRAX.

LAUREOLA. A Name for several Species of THYMELÆA.

LAURIFOLIA *Javanensis*. See MAGOSTANS.

LAURO.

LAURO-CERASUS.

The Characters are;

It hath broad, thick, shining, evergreen Leaves, somewhat like those of the Bay-tree: The Cup of the Flower is hollow and Funnel-shap'd, spreading open at the Top, and is divided into five Parts: The Flower consists of five Leaves, which expand in form of a Rose, having many Stamina in the Centre. The Fruit (which are like those of the Cherry-tree) are produced in Bunches, and the Stone is longer and narrower than that of the Cherry.

Boerhaave mentions but one Sort of this Plant; which is the *Lauro-cerasus*. *Offic. Ger. Emac.* 1603. *Raii Hist.* 2. 1549. *J. B.* 1. 420. *Tourn. Inst.* 628. *Beerb. Ind. A.* 2. 228. *Cerasus folio Laurino.* *C. B. P.* 410. *Cerasus Trapezantina, five Lauro-cerasus.* *Park. Theat.* 1518. *Padus exotica folio amplo, crasso, sempervirenti.* *Rupp. Flor. Jen.* 108. LAUREL, or CHERRY-BAY.

This is a Plant too well known to require a Description. The Berries are recommended as good Anticorburics.

Dr. Madden communicated to the Royal Society the following curious and useful Particulars, relative to the Laurel.

A very extraordinary Accident, which happened at *Dublin* some Months ago, has discovered to us a most dangerous Poison, which was never before known to be so, tho' it has been in frequent Use among us: I mean the Simple-water, distil'd from the Leaves of the *Lauro-cerasus*. It is at first of a milky white Colour, but the Oil, which comes over the Helm with it, being in a good measure separated from the Phlegm, by passing it thro' a Flannel-bag, it becomes as clear as common Water.

It has the Smell of the bitter Almond, or Peach-kernel; and has been for many Years in frequent Use among our Housewives and Cooks, to give that agreeable Flavour to their Creams and Puddings. It has also been much in Use among our Drinkers of Drams, and the Proportion they generally use it in, has been one Part of Laurel-water to four of Brandy.

Nor has this Practice, however frequent, ever been attended with any apparent ill Consequences, till some time in *September* 1728. when it happened, that one *Martha Boyse*, a Servant, who lived with a Person that sold great Quantities of this Water, got a Bottle of it from her Mistress, who gave it to her Mother *Anne Boyse*, as a very rich Cordial.

Anne Boyse made a Present of it to *Frances Eaton*, her Sister, who, being a Shop-keeper in the Town, gave about two Ounces of it to a Woman called *Mary Whaley*, who had bought some Goods of her.

Mary Whaley drank about two Thirds of what was filled out, and went away. *Frances Eaton* drank the rest. *Mary Whaley* went to another Shop to buy somewhat else, and, in about a quarter of an Hour after she had drank the Water, (as I am inform'd) she complain'd of a violent Disorder in her Stomach. She was carry'd home, and, from that time, lost her Speech, and dy'd in about an Hour, without Vomiting, or Purging, or any Convulsion.

The Shop-keeper, *Frances Eaton*, writ Word to her Sister *Anne Boyse*, of what had happened, who came to her upon the Message; and affirmed, that it was not possible the Cordial (as she called it) could have occasioned the Death of the Woman; and, to convince her of it, she filled out about three Spoonfuls, and drank it. She continued talking with *Frances Eaton* about two Minutes longer, and was so earnest to persuade her of the Liquor's being inoffensive, that she filled out two Spoonfuls more, and drank it off. She was hardly well seated in her Chair, when she died without the least Groan or Convulsion.

Frances Eaton, who, as was before observed, had drank somewhat above a Spoonful, found no Disorder in her Stomach, or elsewhere; but, to prevent any ill Consequence, took a Vomit immediately, and has been well ever since.

Mary Whaley was bury'd without being examined by any one, that I can find, except the Coroner. I went to see *Anne Boyse*, about twenty-four Hours after her Death, but could not prevail to have her opened. She was about sixty Years old; her Countenance and Skin appeared well-coloured, and her Features were hardly altered, so that she look'd like one asleep. Her Belly was not swelled, nor had she any other external Mark of Poison.

This Accident brought into Discourse another of the like Nature, which happened four Years before, in the Town of *Kilkenny*. The Son of *Mr. Evans*, an Alderman of the Town, mistook a Bottle of this Laurel-water for a Bottle of Prisan. What Quantity he drank, is uncertain; but he dy'd in a few Minutes, complaining of a violent Disorder in his Stomach. This Affair was not much regarded at that time, because he laboured under a Distemper, to which, or to an improper Use of Remedies, his Death was attributed by those about him.

To satisfy myself farther, as to the Effects of this Poison, I, with a few Friends, made the following Experiments.

I. *Octob.* 3. 1728. We gave a large Setting-dog three Ounces of Laurel-water by the Mouth: In three Minutes he began to be strongly convulsed. His Convulsions continued about five Minutes; after which I untied him. He then fell into a most violent Difficulty of Breathing, which lasted about eight Minutes, and abated gradually; upon which, he endeavour'd to raise himself, but could not. I ty'd him down again, and gave him an Ounce

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and an half more; upon which he sunk at once, and without any Return of his Convulsions, or Difficulty of Breathing, expired in two Minutes.

Upon opening the Stomach, I found in it the whole Quantity of Water which he had taken; its Surface was covered with Froth, but it was not otherwise altered in its Colour, Consistence, or Smell. The Inside of the Stomach was not at all inflamed, nor was there any visible Alteration in the *Tunica Villofa*.

The Veins of the Stomach, all the Meseraic Veins, and, also, the Vena Cava, were much distended with Blood; the Arteries, on the contrary, were remarkably empty. The Liver and Gall-bladder were no way altered. The Kidneys were unusually full of Blood, and appeared of a bluish Colour, almost as deep as that of the violet Plum. Upon making an Incision into one of the Kidneys, the Blood flow'd in much greater Plenty, and was more fluid than usual. In the Heart there appeared nothing preternatural. The Brain was no way altered.

II. *Octob.* 24. We gave an Ounce and an half of the same Water to a Bitch of a smaller Size. She was immediately let loose, and in two Minutes lost the Use of her Limbs. She attempted several times to raise herself, and walk; but she staggered and reeled about, and then fell down.

She repeated this, without ceasing, about five or six Minutes. At last she was violently convulsed, especially in the Muscles that extend the Head and Spine. About the Space of a Minute she had that sort of Convulsion called the *Opisthotonus*, the Back of her Head being drawn almost to her Tail.

After this she vomited plentifully, and her Convulsions ceased. She then lay still for seven or eight Minutes, labouring for Breath, (but not so violently as in the former Case) and foaming at the Mouth. We gave her an Ounce more of the Water; upon which her Difficulty of Breathing increased, and she dy'd in two Minutes.

Upon opening the Abdomen, Thorax, and Head, we found every thing in the same State, as in the former Instance.

III. *Octob.* 25. We gave two Ounces of the Water to a Dog of the same Size with the former, which produced the like Appearances, as in the foregoing Case. This Dog was dying half an Hour; for the Dose was not repeated, because he did not vomit up what he had taken. Upon opening him, we found every thing in the same State, as in the former Instance.

IV. *Octob.* 26. We gave two Drams and an half of the Water to a Dog of a middle Size, and immediately unty'd him. He then ran about the Room very briskly for about a Minute, and seemed to be no way affected with it; yet he soon lost the Use of his Limbs. He often attempted to raise himself and walk, but still fell down again, before he had mov'd two Yards from the Place.

After this, he vomited plentifully, considering that he had fasted twenty-four Hours; upon which, he was seized with a Convulsion more violent than any of the former Dogs, especially in the Muscles which extend the Head and Spine. These Convulsions continued about eight or ten Minutes; upon their ceasing, he lay still, breathing deeply, tho' regularly, and seemed to be asleep. In about ten Minutes he raised himself, took some Food, and walked about tolerably well. We left him, and, returning after three Hours, found him perfectly recovered.

V. *Octob.* 28. We injected an Ounce of the Water into the Intestinum Rectum of a strong Spaniel-dog, and let him loose. In the Space of two Minutes he began to lose the Use of his Limbs, and to stagger, as the others had done. He was convulsed more violently than any of the rest, and principally in the Muscles of the Neck and Spine. The Muscles of his Eyes were strongly convulsed, which Appearance was not observed in the other Dogs. He foamed at the Mouth, yelled frequently, and breathed with more Difficulty than any of the rest. His Convulsions continued twenty Minutes: Upon their ceasing, he lay quiet, as tho' he slept, only his Eyes were open. His Limbs were now grown perfectly paralytic.

We raised him several times, and set him on his Legs, but he did not attempt to use them. He continued in this way about fifteen Minutes longer, and then was seized with another violent Convulsion, which, in five Minutes, put an End to his Life.

Upon opening the Abdomen, we found the Veins of the Stomach and Outs very much distended with Blood, as in all the former Instances. In the Heart, Lungs, and Brain, there was no visible Alteration.

VI. *Octob.* 30. We injected an Ounce and an half of the Water, diluted with three Ounces of common Water, into the Anus of a small Bitch. Before we could untie her, she was seiz'd with Convulsions, and yelled much. She fell as soon as she was loosed, and never after endeavour'd to rise. She had Convulsions, and great Difficulty of Breathing, about two Minutes. She then lay still, with her Limbs stiff and extended, about three Minutes; during which time her lower Jaw was convulsed, and pulled alternately to and from the upper Jaw, with a very quick Motion. After this her Limbs became paralytic, and she gasped for Breath about two Minutes longer. She was quite dead, in seven or eight Minutes from the Injection of the Clyster. In the Abdomen, Thorax, and Brain, every thing appeared as usual.

VII. Nov. 2. We injected half an Ounce of the Water, diluted with three Ounces of common Water warmed, into the Anus of a small Bitch. In the Space of four Minutes she began to breathe with Difficulty. We let her loose, but she was not able to stand, or walk without stumbling. The Muscles which extend the Head, were convulsed; and her fore Legs were affected for three or four Minutes with a Tetanus, but had no convulsive Motion. She vomited and purged plentifully. She did not yell, nor seem to suffer much Pain, nor did she lose her Senses all the time. In half an Hour she recovered.

VIII. The next Day we injected a Dram of the Water into the external Jugular of the same Bitch. She was seized with Convulsions as violent as the former, before we could untie her. They lasted about five Minutes, after which she recovered gradually, and continued well.

IX Nov. 20. We injected four Ounces of the Water, by the Anus, without any Dilution, into a strong Dog of a middle Size. He was seized with Convulsions and Difficulty of Breathing, in less than two Minutes after the Injection. He fell to the Ground as soon as his Convulsions began, and never once attempted to rise; nor were his Convulsions in any sort so violent, neither did they continue to long, as in the former Instances. He bled at the Nose about four Spoonfuls. The Blood was of a very bright florid Colour. His Convulsions lasted about four Minutes; after which, he became entirely paralytic, and died in three Minutes more. We found the Stomach, Intestines, Liver, &c. in the same State as those above-mentioned. Upon cutting about an Inch from the lower Part of one of the Lobes of the Lungs, the Blood flowed from it in great Plenty, and appeared more florid and fluid than usual.

X. Dec. 14. We gave five Ounces of Laurel-water by Clyster to a Dog, somewhat of the Size and Shape of the Italian Grey-hound. He seemed at first to be no way affected by it, but, in about five Minutes, he began to droop, and lose the Use of his Limbs. He did not once yell or struggle, as the others had done, but sunk gradually, till he became at last entirely paralytic. He had not any Convulsion, except a kind of Spasms Cynicus, a few Minutes before he died, which happened in half an Hour after the Injection of the Clyster. Upon opening the Abdomen, we found the Veins much distended with Blood; as were, also, the Veins and Sinuses of the Brain.

XI. Dec. 19. We gave three Ounces of the Water, in the same manner, to a Cur of the Lap-dog Size. He died in seven Minutes, without any Convulsion, except a Tetanus in the Muscles which extend the Head.

The *Lauro-cerasus* being an Ever-green, and abounding with a warm essential Oil, we imagined that other Ever-greens might partake of the same poisonous Quality. Accordingly we made Trial of a Water distilled in an Alembic from the Leaves of the Yew-tree, so much talked of by the Ancients; and whose very Shade they supposed to be fatal to those who sat or slept under it.

XII. We gave three Ounces of this Water by Clyster to a very small Cur-dog; but he was not in the least affected with it.

XIII. We, also, gave, by the Mouth, two Ounces of a Water distilled from the Leaves of the Bay-tree to a young Spaniel, without any Effect.

XIV. We afterwards made an Experiment with the distilled Water of Box-leaves, which had a very strong narcotic Smell. We injected five Ounces of this Water, by the Anus, into a small Cur-dog; but he was no way affected with it, though we kept him twelve Hours after the Operation.

XV. Being desirous to know whether the Virulency of Laurel-water proceeded from the Fire in Distillation, we poured warm Water upon some Laurel-leaves bruised, and made a strong Infusion of them. We poured an Ounce of it down a Dog's Throat, half of which was supposed to enter his Stomach; and, five Minutes after, another Ounce was given in like manner. The Dog seemed to be somewhat sick at his Stomach, but was soon as lively as ever. A few Minutes after, another Ounce was given to him by the Mouth, of which we suppose a fourth Part to have been lost. He soon after stared and trembled very much. In five Minutes another Ounce was exhibited, upon which he trembled as before; but, in a little time, he appeared easy and lively.

Imagining that these small Quantities lost their Power, during the Intervals of giving them, in ten Minutes after his taking the former Dose, we poured down his Throat two Ounces and an half at once. He immediately tumbled on his Back convulsed, and tumbled over three or four times, but quickly returned to his Feet. He staggered, his Eyes stared, and he sat down like a Dog that is tired. At length he shut his Eyes, his Neck became extended, and we apprehended he was falling into Convulsions; but, instead thereof, he vomited a vast Quantity of indigested Chyle, in which appeared a great Portion of the Infusion; after which he seemed to be perfectly recovered.

In about twenty-five Minutes after this, we gave the same Dog, by the Mouth, two Ounces of the Juice expressed from Laurel-leaves; and, in about ten Minutes more, another Ounce was given him in the same manner. In a few Minutes he began to lose the

Use of his hinder Legs, but he quickly recovered them. Upon his taking another Ounce soon after the former, he fell into a great Difficulty of Breathing, and yelled much. After this he was seized with very strong Convulsions, which affected his lower Jaw and hinder Legs most remarkably.

In about five Minutes these Convulsions were succeeded by an entire Resolution of all the Limbs. He breathed with great Difficulty, and very slowly. No Appearance of Expiration. Sometimes we observed two Attempts at Inspiration, without Intermission, or closing of the Mouth. At other times there was near a Minute between two Inspirations.

After this he was seized with a Trembling in his Limbs, and, in about three quarters of an Hour from his taking the last Ounce, he died without any struggling, with his Tail extended.

Dr. Rusty informs us, that Bole, Vinegar, and Milk, were given to a Dog which had swallowed some of the Laurel-water. The Bole and Vinegar were not observed to do much Good, but the Dog which drank the Milk, recover'd without any bad Symptoms; but, at that Distance of Time, the Doctor could not recollect the Proportions which were given: He thinks, a Pint of Milk.

There are other Histories of Experiments made with Laurel-water upon Dogs, which are much to the same Effect. *Philos. Transact. Abr. Vol. 7. p. 365.*

LAURO-SERRATÆ, odoratæ, and the *Laurus, non odorata*, are Names given to the *Euonymo adfinis*; *Æthiopica*; *semper-virens*; *fructu globoso, scabro*; *foliis salicis rigidis, serratis*.

LAURO-SIMILIS. See LAURUS.

LAURUS

The Characters are;

It hath a Flower consisting of one Leaf, which is shaped like a Funnel, and divided into four or five Segments; the Male Flowers, which are produced on separate Trees from the Female, have eight Stamina, which are branched into Arms; the Ovary of the Female Flowers becomes a Berry, inclosing a single Seed within a horny Shell, which is cover'd with a Skin.

Boerhaave mentions twelve Species of this Plant; which are,

1. *Laurus*; *Indica*. *Hort. Farnes. Ald. 61. Cinnamomum, spurium. Vulgô.*
2. *Laurus*; *latifolia*; *πλάγιος*, *Dioscoridis. C. B. P. 460. Tourn. Inst. 597. Boerb. Ind. alt. 2. 215. Raii Hist. 2. 1690. Laurus latifolia. Offic. Laurus major sive latifolia. Park. Theat. 1488. THE BROADER-LEAVED BAY-TREE.*

It agrees in Virtues with the common Bay-tree. *Dale.*

3. *Laurus*; *latifolia*; *Fœmina*.

4. *Laurus*; *vulgaris. C. B. P. 460. Thurn. Inst. 597. Boerb. Ind. alt. 2. 216. Laurus. Offic. Ger. Emac. 1407. Park. Parad. 598. J. B. 1. 405. Raii Hist. 2. 1688. Laurus minor. Park. Theat. 1488. Laura mas & fœmina. Ger. 1222. THE COMMON BAY-TREE.*

This grows to be a Tree of a moderate Bigness in its native Climate; but here, with us, it is lower, and runs out into many Branches; the lesser Twigs being usually of a reddish-brown Colour, as are, also, the Footstalks of the Leaves, which are oblong, broadest in the Middle, and sharp-pointed at the End; firm, hard, and stiff, of a darker Green above, and paler underneath, of a pleasant strong Scent: The Flowers grow in Clusters upon the younger Branches, among the Leaves, each consisting of a whitish monopetalous Flower, divided into five Segments; these are followed by oval Berries, included in a black thin Skin, and parted in two in the Middle. It is planted in our Gardens, but grows wild in *Italy, Spain*, and the Southern Parts of *France*, and flowers in *May*; the Berries are ripe in *October*: The Leaves and Berries are used.

They are both heating and drying, emollient and resolving; very good for Wind in the Stomach and Bowels; help the Colic, comfort the Head and Nerves, and are good against infectious Distempers: They provoke Urine, and the Menstrues, and expel the Secundines. Outwardly they are used in warming and strengthening Fomentations and Ointments.

Officinal Preparations are the Liqueur of Bay-berries, the Plaster of Bay-berries, and the Oil of Bays. *Miller's Bot. Off.*

The *Laurus* has an heating Quality in its Leaves, Bark, and Berries. *Dioscorides* makes it an Emollient, and *Galen* a Drier. Hence a Decoction of them, especially of the Leaves, is very proper for an Infusion, in Diseases of the Uterus and Bladder: The green Leaves, bruised and applied, heal the Stings of Wasps, Bees, and Hornets, and resist the Poison of Serpents; particularly, the Sepe, Dipsas, and Viper: Boil'd in Oil, they are of Service, as *Pliny* says, for promoting the Catamenia; the tender Leaves, bruised with Potentilla, are effectual for Inflammations of the Eyes; bruised with Rue, they mitigate Inflammations of the Testes; and with Oil of Roses, or Oil of Iris, they ease the Headach. But *J. B.* thinks, we ought to be cautious of using the Leaves in Inflammations; and is, therefore, of Opinion, that, instead of *Inflammationes* [Inflammations], we ought to read *Inflationes* [Inflations]. The Leaves bruised with Honey are good in Asthmias; but the Bark of the Root is to be avoided by pregnant Women. The Root taken to the Weight of half a Dram, in sweet-scented Wine, breaks the Stone, and is good for the Liver. The Leaves, taken in a Potion, oppress the Stomach, and

and excite Vomiting. In the *Greek* Text of *Dioscorides* we read, *περὶναι τὸν σμάχον*, “mitigates the Stomach;” for which *Cornarius* reads *βαρύνει*, “oppresses.” That there is an Error in one of the two Members of the Clause, is certain, from their Repugnance, [*περὶναι τὸν σμάχον, ἢ ἐμῆς κινεῖ*]; but the Mistake, in *J. Bauhine’s* Opinion, lies not in the first, but in the latter of them: For it is certain, he says, as well from Experience, as the Authority of *Galen*, that the *Laurus* is all aromatic and bitterish, with somewhat of Astringency, and friendly to the Liver; which Qualities are so far from subverting the Stomach, that they rather corroborate that Part, and correct a Nausea; for which Reason it is grown into a Custom, to boil Bay-leaves with some Sorts of Meats, especially Fish; and so far are these Leaves from exciting a Nausea, that they render the Food the more savoury and grateful to the Stomach: Therefore he judges the Word *κινεῖ*, “excites,” to have crept into the Text, and ought to be expunged; and that *Pliny* made use of a corrupt Copy. But *Salmasius* says, that *Pliny* is at least cotemporary, if not more antient than *Dioscorides*; and, therefore, both of them transcribed from some more antient Author those things which are the same in both; and, consequently, since both *Pliny* and *Dioscorides* agree in ascribing this emetic Quality to the *Laurus*, it is not to be doubted, but that the last Member of the Clause stands uncorrupted, and that the first is wrong, and ought to be corrected by the Help of the other; as it was rightly done by *Cornarius*. Whether the Leaves have really such an emetic Quality, or whether the contrary, appears from Experience. *Gaspar Hoffman*, having proposed the Question, Whether Bay-leaves are salutary or noxious to the Stomach? answers, that he was induced, by a Multi use of Authorities, to believe the latter. Therefore, says *Ray*, I conclude, with *Marcellus Virgilius* and *Cornarius*, that for *περὶναι*, in *Dioscorides*, we ought to read *βαρύνει*. *Dioscorides* and *Pliny* proceed as follows.

The Berries are more heating than the Leaves, and provoke the Menstrues, if bruised, and outwardly applied, or taken inwardly: Bruised, and made into an Eclegma, with Honey or Balsam, they are good for a Consumption, the Orthopnea, and Delusions on the Breast: Taken in Wine, with their Rind peeled off, they are effectual against an inveterate Cough; for they concoct and expectorate Phlegm: Thus *Pliny*. At present we make no Use of the Berries, in Diseases of the Breast and Lungs; but exhibit both Berries and Leaves, in Disorders of the Stomach, Liver, Spleen, and Bladder; for they heat a cold Stomach, promote a Concoction of cold Humours, excite a languishing Appetite, and remove a Loathing, open Obstructions of the Liver and Spleen, provoke Urine and the Menstrues, and expel the Secundines. To facilitate the Birth, swallow seven Bay-berries before Sleep. *Chesneau*. The Berries taken in Wine thus, are good against the Poison of Scorpions, and absterge the Vitiligo. To this *Pliny* adds, that, made into a Litus with Oil, they cure Epinyctides, the Lentigo, running Ulcers, Ulcers of the Mouth, and scald Heads; and that the Juice of the Berries cures Itchings of the Skin, and the Phthiriasis. The expressed Juice of the Berries, with old Wine, and Oil of Roses, instilled into the Ears, eases their Pains, and helps Deafness. No venomous Creature will approach those who are anointed with it: The Berries, taken in Wine, are a Remedy against inward as well as outward Poisons, and resist the Venom of Serpents, Scorpions, and Poisons: Made into an Ointment with Oil and Vinegar, they are used about the Regions of the Liver and Spleen; and, mixed with Honey, they are of Service in Gangrenes. Some advise taking an Acetabulum of the Root, green rather than dry, in Water, as a great Accelerator of the Birth. As a Remedy for the Uvula:

Take a Quarter of a Pound of the Berries, and boil them in three Pints of Water to one Third: Which use warm, as a Gargarism.

The Leaves of the *Laurus* rubbed, and now-and-then smelled to, are a Preservative against the Contagion of the Pestilence; for which Reason the Emperor *Commodus*, as *Herodian* writes, in the Time of the Plague, by the Advice of his Physicians, wore the *Laurus*, and retired to Places abounding with the same Plant: For Evergreens, according to the Opinion of *Gremb. Cardulius*, and other Followers of *Helmont*, are Alexiterials against the Pestilence, resist Corruption, and defend themselves against both Heat and Cold: Whence God has plainly signified to us, that these perennial Plants are always ready at hand, for the daily Use of Mankind; for they contain within them a Balsam, preservative against all Corruption.

For Black Cattle affected with the *Coriago*, that is, when they are hidebound, we are advised, by *Columella*, to boil Bay, and foment their Backs with the warm Decoction, and to take up the Skin every-where, and to stretch it, which is best done in the open Air, and under the fervent Rays of the Sun.

Oil of Bay is often mention’d by the Antients and Moderns; one Sort is expressed from the fresh Berries bruised, another is prepared of the Berries bruised, or entire, and put into boiling-hot Water, and suffered to bubble up; the Oil which swims on the

Water, is afterwards collected into Vessels. Another Oil is extracted by Distillation, in the following manner: Take of Bay-berries, two Pounds; bruise them, and pour upon them three or four Pints of warm Water; after they have stood for some time, distil them in an Alembic, or by a Worm, by which means you will obtain an Oil and Water, which are to be separated by the Tritorium: There is also an Oil of Bay which is prepared of the Leaves or Berries boiled in *Oleum Omphacinum*, or Oil of unripe Olives.

Oil of Bay is heating, mollifying, opens the Pores, and removes Latitudes; it is of Service in all nervous Disorders, Pains of the Ears, and Distillations. It is an excellent Remedy for Diseases of the Kidneys, contracted from Cold; being rubbed on the Parts; and relieves the Patient, if any thing will do it. Its heating Quality causes it to be used in the Palsy, Convulsions, Sciatica, Sugillations, inveterate Pains of the Head, Distillations, and Diseases of the Ears: The Method is to heat it in the Calyx of a Pomegranate, and then anoint the affected Part with it. In a Pain of the Colon it is of admirable Service, being injected in a Clyster, as it is, also, in the Horror, or shaking Fit of a Fever; but in hot and bilious Temperatures, it is to be avoided. It destroys Worms, Lice, Nits, and other Vermin: In short, it is effectual in cold Distempers, but principally, if used outwardly; for, inwardly taken, it excites a Nausea.

Schroder says of the distilled Oil, that it is an excellent Dissolver of Flatules and Ventositates, especially in pregnant Women subject to convulsive Disorders, and, also, in the Colic; it restores the Limbs under apoplectic Fits; being rubbed thereon, and put into the Ears, it eases their Pains, and quickens the Hearing. It absterges the Impetigo, Lentigo, and all manner of Spots in the Face; and cures ichorous Pains of the Head, the Phthiriasis, and Tinea.

The *Emplastrum Laurinum*, or Plaister of Bay, is good for the Dropsy; for Pains proceeding from a Platus, or some cold Cause; and for the Pain of the Colic: The Electuary of Bay-berries, also, dissipates Flatulences.

If the dry’d Branches of Bay be rubbed very fast one against another, and Powder of Sulphur be cast thereon, a Flame will suddenly burst forth; which seems strange, because the Wood of Bay is of a light and spongy Substance. But nothing is so fit for this Purpose, according to *Pliny*, as Ivy to be rubbed, and Bay to rub: Since, however, the Attrition is mutual, it seems indifferent, says *Ray*, whether the Ivy, or the Bay, rub, or be rubbed. *Raii Hist. Plant.*

For the *Electuarium de Baccis Lauri*, see FLECTUARIUM.

For the *Emplastrum de Baccis Lauri*, see EMPLASTRUM.

The *Oleum Laurinum*, or Oil of Bays, is thus ordered to be prepared, in the College Dispensatory.

Take of Bay-berries, ripe, and gathered not many Days, any Quantity: After bruising them, boil in a sufficient Quantity of Water, and force out their Oil with a Press: Beat again the remaining Faeces, and pour hot Water upon them, as before, and again press out all that you can: Then separate the Oil that swims upon the Water, for Use. *S. A.*

This is said to be an effectual Cure for Aphthæ in Children, if rub’d upon the Crown of the Head.

5. *Laurus*; vulgaris; folio elegantissime variegato aureo.
6. *Laurus*; vulgaris; Fœmina.
7. *Laurus*; vulgaris; folio undulato. *H. R. Par.*
8. *Laurus*; vulgaris; folio undulato, Fœmina.
9. *Laurus*; tenuifolia. *Maf. Tab.* 1361.
10. *Laurus*; tenuifolia, Fœmina.
11. *Laurus*; *Atricana*, minor; folio *Quercus*. *H. A.* 2. 161.
12. *Laurus* similis; folio tenero. *Ind.* 240. *Arbor Brasiliensis*, *Myrti laureæ foliis inodoris*. *H. A.* 1. 173. *Boerb. Ind. alt. Plant.* Vol 2. p. 215.

Laurus Alexandrina. See the Articles BISLINGUA, BRUSCUS, and RUSCUS.

Laurus Sylvestris. See TINUS.

LAUTISSIMA VINA. Wines impregnated with Myrrh. *Linden*.

LAWANG. A Tree which grows in *Java*. By the Taste of a Specimen of the Bark, *Ray* thinks it a Species of *Sassafras*. *Hist. Plant.*

LAXA CHIMOLEA, in *Paratelsus*, is a purging Medicine principally recommended in the Venereal Disease, being the Powder of the Flowers of saline Minerals. *Johnson* says, that *Laxa Chimolea* is a Salt growing upon Stones, as the *Anatron*, or *Ufnea Lapidea*.

LAXANTIA MEDICAMENTA. Laxative Medicines, with respect to the Belly; or relaxing Medicines, relative to the entire Habit.

LAXATIO. Laxation with respect to the Belly, or the entire Habit.

LAXATIVA. The same as LAXANTIA. Both imply the same as ECOPROTICA.

LAXITAS. Laxity; that is, a Defect of due Rigidity and Strength, in the Fibres, Vessels, and Viscera.

I intended

LEC

I intended the Doctrine of Relaxation for this Article, and have accordingly referred to it from many other Articles; but finding, upon Reflection, that it would be more distinct and proper, under the Article FIBRA, I have there explained it at large. See, therefore, FIBRA.

LAZARI Morbus, or *Malum*. The *Elephantiasis*, or Leprosy.

LAZULI Lapis.

Lapis Lazuli. Offic. Schrod. 352. Calc. Mus. 467. Geoff. Prælect. 74. Worm. 65. Boet. 273. Charlt. Foss. 27. *Caruleus Lapis*. Matth. 1354. *Lapis Cyanus*, sive *Lazuli*. Aldrov. Mus. Metall. 870. *Caruleus*. Ejusd. 349. *Caruleus natus*. Theoph. de Lap. Ed. Lugd. Bat. 1647. *Cyanus*, seu *Lapis Lazuli*. De Laet. 90. *Caruleum nativum*. Schw. 375. Woodw. Art. Tom. 2. P. 1. p. 42. AZURE STONE.

This is a hard blue Stone, with Gold and Silver-coloured Specks and Veins; and is found of two Kinds, one that can bear the Fire, and the other that cannot. The first is brought from *Asia* and *Africa*, and is called the Oriental Stone; the other is found in some Places in *Germany* and *Italy*, being dug out of Gold, Silver, and Copper Mines, and is softer than the Oriental. The Oriental produces the Ultramarine Blue, which never changes with Age. But the German Ultramarine is easily affected by external Causes, and in time turns green. The best Lapis Lazuli is of a deep-blue Colour, marked with some Gold Specks, hard to break, and durable in the Fire.

It purges upwards and downwards, and is recommended by Authors in melancholy Affections, Quartan Agues, Apoplexies, and Epilepsies. They attribute to it a corroding Quality, with some Astringency; the first of which, *Dioscorides* and *Galen* say, may be corrected by washing it in Water; but they are mistaken; for, both washed and unwashed, it vomits and purges, and what the Water carries off from it differs from what remains, only in the fineness of the Parts. The blue Colour of this Stone arises, undoubtedly, from some Parts of Copper mixed with it, from which, also, its purgative Quality proceeds; but it may very reasonably be asked, why an acrid and purgative Medicine of this Kind should be used in the Confectio Alkermes, designed for a strengthening Cordial. To answer this, it is to be considered, that the antient Physicians acknowledged two Virtues in this Stone, one purgative, the other styptic; which, though contrary to each other, were nevertheless found in the same Subject. The styptic Quality, by which it becomes a Strengtheners, they counted natural to it, when it was found in Gold Mines, mixed with small Particles of Gold; the cathartic Quality they considered as merely accidental, arising from the Mixture of heterogeneous Parts. Therefore, on account of the strengthening Virtue of this Simple, they endeavoured, by various ways, to correct the other, as by repeated Ablutions and Calcinations; but whether they have succeeded or not, is with me still a Doubt; though I must own, that long Experience has shewn, that no bad Accident ever happens from the Confectio Alkermes rightly prepared. Whence it may be conjectured, that by Calcination the purgative Virtue of the Stone is very much lessened, or entirely destroy'd; but I cannot say, that it contributes any thing to the cordial Virtues of the Confection. The Antients thought it purged off particularly the Atra Bilis, but, I am afraid, upon no good Grounds; for the black Colour of the Stools, after taking it, is not so much owing to the Nature of the Faeces, as to the Tincture which all Steel and Copper Medicines communicate to them.

As there are many Medicines of more certain Efficacy among us, we seldom use the Lapis Lazuli in any thing but the Confection already mentioned; all the Magisteries, Tinctures, and Elixirs, which the Chymists prepare from it, being laid aside. *Geoffroy*.

When *Geoffroy* mentions the Lapis Lazuli, as an Ingredient in the Confectio Alkermes, he means a Sort directed in foreign Dispensatories; for in ours it has been long omitted.

The Dose, according to *Schroder*, is a Dram of the Stone reduced to a fine Powder. *Schroder*, also, directs a Magistery, Elixir, and Extract of this Stone, which the Curious may see in his *Pharmacopœia Medico-Chymica*, L. 3. C. 8.

LAZURIUS. Of an azure Colour. This Colour is, by *Paracelsus*, esteemed very bad in a Leprosy. The *Lazurium Argenti*, or *Pulvis Lazurinus*, is the *Crocus Lunæ*, Saffron of Silver.

LEÆNA A Lioness. *Leæne Emplastrum* is the Name of a Plaster mentioned by *Actius*, *Tetrabib.* 2. *Serm.* 3. C. 85. And *Paulus Aegineta* describes two under this Name, L. 7. C. 17.

LEBERIS, λιβηρίς, signifies the Exuvie, or Sloughs of Serpents. *Hippocrates*, in *Lib. 2. de Morbis Mulierum*, recommends the Exuvie of Vipers as a Cure for Sun-burns on the Face.

LEBIAS, λιβίας. The Name of a Fish, the same as *Hepatus*.

LECHENEON, λεχηνών. A Name for the Turcular Herophili. *Galen*. See LEMNOS.

LECHIA. The Name of a Fish, which some take to be the *Centrina*, others the *Atuna*, of the Antients. *Castellus*.

LECHO, λεχός. A Woman in Child-bed. *Moschion*.

LECISCION, λεκίσκιον. A small *Acetabulum*, relative to the Measure thus called. *Hippocrates*.

LEM

LECITHOS, λεκιθός, is interpreted a sort of Puls; according to some, a Pea, or wild Vetch (*Aracus*). It is, likewise, expounded, a decorticated Lentil, or the Meal of decorticated Lentils. It is sometimes wrote λεκυθός.

Lecithos, λεκιθός, is, also, the Yolk of an Egg. This Homonymy renders it difficult to determine, whether *Hippocrates*, when he applies the Epithet, λεκιθώδης, to the *Hypokasis* of Urine, *Epidem.* L. 4. and to *Pus*, de *Morbis*, L. 2. means to compare them to the Meal of Lentils, or to the Yolk of an Egg.

LECTIO. Reading. This is said, by *Celsus*, L. 1. C. 4. to be bad, especially after Supper, for those whose Heads are weak. And in L. 1. C. 8. he recommends reading with an audible Voice, for such as have weak Stomachs. It is, also, directed by *Paulus Aegineta*, as an Exercise, L. 1. C. 19.

LECTUALIS MORBUS. A Disease which confines a Person to his Bed.

LECTUS. A Bed. See ÆORA.

LEDUM. A Name for several Species of CISTUS.

LEFFA. *Rulandus* explains this *Herbarum Prædestinatio*.

LEFFAS. See BUR.

LEGNA, λέγνα, in *Hippocrates*, imports the Margin, or Edges, of the Mouth of the Womb, called *Os Tinea*, or *Amphideon*.

LEGUANARIA is the second Species of *Ziziphus* in *Boerhaave*.

LEGUMEN is a Species of Plant which are called *Puls*; such as Peas, Beans, and the like; and are so call'd, because they may be gather'd by the Hand, without cutting. Mr. *Ray* reckons all those Plants, which have a papilionaceous Flower, among the Legumens.

Legumen, *Terræ glandibus simile*. A Name for the *Lathyrus*; *sylvestris*, & *dumetorum*, flore luteo.

LEIOBATOS, λειόβατος. The same as LEVIRIA.

LEIOPODES, λειόποδες. Even-footed. Those are thus called, the Soles of whose Feet are without the usual hollow Part.

LEIPHÆMOI, λειφαίμοι. Those are thus called, who labour under a Deficiency of Blood, or who have not a sufficient Quantity of Blood. From λείπω, to be deficient, and αἷμα, Blood.

LEIPODERMOS, from λείπω, to be deficient, and δέρμα, the Skin. A Person is thus call'd, who has lost his Prepuce, whether by Section, or a Disease.

LEIPOPSYCHIA, λειποψυχία, from λείπω, to leave; and ψυχή, the Soul, or Life. A fainting Fit.

LEIPOTHYMIA, from λείπω, to leave, and θυμός, the Mind. The same as LEIPOPSYCHIA.

LEIPYRIAS, λειπυρίας, from λείπω, to leave, and πῦρ, Heat, or Fire. A Species of very malignant and dangerous *Causis*, or burning Fever, wherein the internal Parts are scorched, as it were, with Heat, whilst the external Parts are cold.

LELYTHUS. A Pea, according to *Blancard*.

LEME, λήμη. The *Sordes* of Eyes.

LEMMA, λήμμα, is expounded by *Erotian*, the Husk, or Hull; and imports whatever is taken off in Decortication.

LEMNIA TERRA. *Dale* mentions two Sorts of this Earth; which are,

1. *Terra Lemnia*. Offic. Aldrov. Mus. Metall. 262. *Terra Lemnia rubra*. Worm. 10. Charlt. Foss. 5. *Lemnia Terra*. Matth. 1360. *Lemnia vel sigillata vera*. Kentm. 3. *Lemnia terra*. Dougl. Ind. 52. *Terra sigillata Turcica rubra*. Mont. Exot. 14. EARTH OF LEMNOS.

The *Lemnian* Earth is a fat, viscid, slippery Clay, of a pale-red Colour. It is brought to us in little Cakes or Troches, marked with different Characters, each weighing about four Drams. It has its Name from the Island of *Lemnos*, where it is dug; and it is not a little surprising to find how much this Earth has been celebrated in all Ages. Even in the Time of *Homer* and *Herodotus*, a great many very solemn Rites were observed in digging it. In the Days of *Dioscorides*, it was made up with the Blood of a she Goat, newly killed; and the Priests of *Venus* stamped it with proper Images. In *Galen's* Time the Goat's Blood was omitted, but many other superstitious Ceremonies still remained; which, when *Petrus Bellonius* was at *Lemnos*, were laid aside, and others substituted in their Place. It is dug, says that Author, only on the sixth Day of *August*; as much being then taken out, as is supposed to be sufficient for a whole Year. When the Vein is opened, the *Greek* Priests rehearse some Forms of Prayer, at which all the considerable Inhabitants of the Island, both *Greeks* and *Turks*, are present. The Vein being afterwards closed, and covered with common Earth, the Inhabitants are forbid, under the severest Penalties, to open it any more during that Year. The greatest Part of this Earth is sent to *Constantinople* to the Grand Signor, with whose Seal it is marked; the rest is sold to Merchants by the Governor of the Island, sometimes with, and sometimes without, his Seal upon it. *Bellonius* remarks, that at *Constantinople* they have the Art of counterfeiting it so dexterously, that the false Earth can hardly be distinguished from the true. That *Lemnian* Earth is reckoned the best, which, when

when bruised between the Fingers, or held in the Mouth, appears most like Fat, and contains least Sand. The Antients have said much about the Virtues of this Earth; but there is some Room to think, that the Reputation it had among them, was more owing to the superstitious Ceremonies observed about it, than to its intrinsic Qualities. *Dioscorides* recommends it as an Antidote against Poisons and Dysenteries. *Galen* says, that, when outwardly applied, it heals all fresh Wounds; and *Fernelius* is of Opinion, that, whether applied outwardly or inwardly, it stops all Fluxes of Blood. Some have celebrated its alexipharmic Qualities in all pestilential and contagious Distempers; but many of the Moderns think it to be a mere alkaline Earth, endued with no other Quality but that of absorbing Acids. This, however, must be a Mistake; because no Earths of this kind raise an Effervescence with Acids; and it appears by its Analysis, not to be altogether destitute of the Virtues attributed to it by the Antients. It yields a small Quantity of volatile urinous Salt, and of a bituminous Oil, and of a Salt not much different from Sea-salt; whence we may conclude, that this Earth is impregnated with a kind of Sal Ammoniac, mixed with a bituminous Oil, by which the Action of Acids upon it is prevented; and that its Virtues must be, in some Degree, alexipharmic, diaphoretic, detergent, and vulnerary. This sealed Earth needs no other Preparation than to be finely powdered, or dissolved in a proper Liquor. In Dysenteries, Ulcers of the Intestines, and Hæmorrhages, it may be administered in Draughts or Boluses, in the following manner.

Take of *Lemnian* Earth, finely powdered, one Dram; of Syrup of Quinces, an Ounce; Plantain-water, and Knot-grass-water, each three Ounces: Mix them into a Potion, to be taken by Spoonfuls.

Take *Lemnian* Earth, Conserve of red Roses, and Hips, of each half an Ounce; of Syrup of Barberries, a sufficient Quantity to make them into a soft Electuary; a Dram of which is to be taken Morning and Evening.

Take of *Lemnian* Earth, half a Dram; Syrup of Clove-gilliflowers, an Ounce; the simple Waters of Baum, Viper's-grass, and *Carduus Benedictus*, each two Ounces; Treacle-water, six Drams: Mix and make them into a Potion, to be taken by Spoonfuls several times in a Day.

In external Applications, this Earth is often joined with Bole. The *Lemnian* Earth is used in *Venice* Treacle, in the Confection of Hyacinth, *Renodæus's* Bezoardic Powder, in *Hoffman's* Orvietan, in the antivenereal Pills of *Charas's* Pharmacopœia regia, and in that Author's Plaster for fractured Bones.

The Inconveniencies that may arise from using this Earth too long, or in too great Quantities, are common to it, with all the other absorbent Earths. They load the Stomach, by adhering closely to, or plaistering its inner Surface, which causes a very disagreeable Sensation; and, by closing the Orifices of the Glands of the Stomach and Intestines, they hinder Digestion, and may occasion the Fluids, which ought to be excreted there, to be carried to other Parts of the Body; from which Causes many Disorders may follow. The Way to prevent Accidents of these Kinds is, to give these Absorbents in small Quantities, diluted with much Liquor, and diligently to observe the Effects they produce. *Geoffroy*.

2. *Terra Lemnia alba*. Offic. *Terra Lemnia sigillata alba*. Charl. Foss. 5. *Terra sigillata Lemnia alba*. Worm. 9. *Terra Lemnia vel sigillata candida*. Kentman. 1. *Terra sigillata Turcica alba*. Mont. Exot. 14. WHITE EARTH OF LEMNOS.

It is a little tenacious and lubricious from its Fatness; whence it adheres to the Tongue, but without Mordacity: It is digged in the Island of *Lemnos*.

As to its Virtues, it stops an Hæmorrhage from the Uterus, and the menstrual Flux; resists Poisons, and malignant Diseases; and cures the Bite of a mad Dog. *Dale*.

LEMNISCUS, λήμνισκος, a Tent. In *Celsus*, L. 7. C. 28. it is a Pestary made of Linen, rolled up in the Form of a long Tent, which he directs to be introduced into the Vagina, after an Incision made for opening the Passage into it, when preternaturally closed.

LEMPNIAS is the *Terra Sigillata*. *Lempnias Calcis* is the Scales of Brass, which separate when it is beaten by the Hammer. *Lempnias*, and *Lempnia*, also, import *Auripigmentum*. *Castellus*.

LENIENS, LENIS, and LENITIVUS, import mild, destitute of Acrimony, softening, or laxative.

LENOS, ληνός, in *Hippocrates*, is a Chancel, or Excavation, made in some Machines for making Extension, and reducing fractured Bones.

Herophilus gave the Name of ληνός, *Lenos*, to that Place within the Head, where several Sinuses of the *Dura Mater* meet, from its Resemblance to a Part of a Wine-press. It is called *Tortular Herophili*. See CAPUT.

LENS.

The Characters are;

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The Leaves are conjugated, and grow to one Rib, which terminates in a Tendril. The Pod is short, and full of orbiculated Seeds, convex on both Sides. *Boerhaave*, *Index alter*, Pars 2. p. 44.

Boerhaave mentions three Species of this Plant; which are, 1. *Lens*; vulgaris. C. B. 346. *Boerb. Ind. A.* 2. 44. *Lens*. Offic. J. B. 2. 317. *Raii Hist.* 1. 904. *Synop.* 3. 323. *Lens minor*. Ger. 1049. *Emac.* 1224. *Park. Theat.* 1068. *Lens vulgaris semine subrufo*. *Tourn. Inst.* 390. LENTILS.

This is a small Puls, less than a Tare or Vetch, having many long-wing'd Leaves, consisting of many narrow small oval *Pinnæ*, set opposite with Claspers at the End of the Leaf. The Flowers are small and white, less than those of Tares, but like them in Shape, standing, for the most part, singly, on a long Foot-stalk; and are succeeded by short flattish Pods, containing two round Seeds, less than Tares, and flatter. It is sown in some Parts of *England* in the Fields, flowering in *May*, and the Seed is ripe in *July*.

The Antients affirm, that Lentils, eaten with their Skins on, bind the Body, and stop a Looseness; and yet, at the same time, the Liquor they are boiled in loosens the Belly. They are but rarely used in Physic, tho' the Flour of them may be used outwardly in Cataplasms, for the same Purposes as Bean-flour. *Milier's Bot. Off.*

They are sown in Fields, and the flattish, yellowish Seeds are in Use. Lentils dull the Eye-sight, are difficult of Digestion, incommode the Stomach, and generate Flatulencies, both in that Part, and the Intestines: They stop a Looseness, and are prejudicial to the Nerves, Lungs, and Head. *Dale* from *Dioscorides*.

Lentils boiled, and made into a Cataplasm, with Polenta, mitigate the Pain of the Gout: A Cataplasm of the same, prepar'd with Honey, conglutinates sinuous Ulcers, cleanses foul Ulcers, and breaks and absterges Crufts round their Margins. A Cataplasm of Lentils, twice boiled in Vinegar, dissolves Hardnesses, and strumous Swellings; the same, prepared with Mellilot or Quinces, with a Mixture of Oil of Roses, cures Inflammations of the Eyes or Anus: But, in considerable Inflammations, and large fistulous Cavities of the Part last named, they boil Lentils with the Rinds of Pomegranates, or dried Roses, and mix Honey therewith: They are, also, effectual against a Nore, or phagedenic Ulcer degenerated into a Gangrene, if prepar'd as before, or with an Addition of Sea-water: The same Preparation cures Pustules, Herpes, Erysipelas, and Chilblains. A Cataplasm of Lentils, boiled in Sea-water, relieves Women whose Breasts are distended with grumous Milk. *Dioscorides*, Lib. 2. Cap. 129.

The *Historia Plantarum*, ascribed to *Boerhaave*, recommends a Decoction of Lentils, for washing the Pustules of the Small-pox, when suppurated.

2. *Lens*; major; vulgaris, semine cinereo & nigro variegato. 3. *Lens*; monanthos. *Boerb. Ind. alt. Plant.* *Lens, palustris*. A Name for the *Lenticula*; *palustris*; *vulgaris*.

LENTA FEBRIS. A slow Fever. See HECTICA. LENTIBULARIA. The Name of two Plants, mentioned by *Tournefort*, and *Ray*, in his *Synopsis*.

1. *Lenticularia*. Riv. Irr. Mon. Ic. *Millefolium palustre gale-riculatum*. Ger. *Emac.* 828. *Aquaticum flore luteo gale-riculato*. J. B. 3. 783. *Park.* 1258. *Aquaticum lenticulatum*. C. B. P. 141. It is found in the Ditches and Ponds in *Lincolnshire*, and in the Isle of *Ely*.

2. *Lenticularia minor*. Pet. H. B. 36. 12. *Millefolium palustre gale-riculatum minus, flore minore*. Syn. 2. 79. 3. *Pluk. Alm.* 251. T. 99. f. 6. *Aparine aquis innatans Trevisana foliis Perceper, capreolis donata, five Aparine fluitans capreolis donata*. Bocc. Mus. P. II. p. 23. T. 4. Found by Mr. *Dent*, on *Reversham-Moor* in *Cambridgeshire*; and in *Yorkshire*, by Mr. *Dodsworth*.

Both Sorts observed, by Mr. *Lawson*, in the Ditches by the Causeway, over the Moss to the Fell-End, near *Wetherflack*, *Westmorland*: In the River on *Hounslow-Heath*, by Mr. *Dandridge*.

The Flowers of this are paler than those of the former.

LENTICULA.

The Characters are;

It grows in the Water, and is seated on its Superficies; its Appearance is quite simple, and foliaceous; and its Roots slender, capillaceous and pellucid. *Boerhaave*.

Boerhaave mentions three Species of this Plant; which are, 1. *Lenticula*; *palustris*; vulgaris. C. B. P. 362. *Boerb. Ind. alt.* 19. *Lens palustris*. Offic. Ger. 680. *Emac.* 829. *Raii Synop.* 3. 129. J. B. 3. 784. *Raii Hist.* 1. 117. *Lens palustris five aquatica vulgaris*. *Park.* 1262. *Lenticularia minor monorhiza foliis subrotundis utrinque viridibus*. Mich. Nov. Gen. 16. DUCKS-MEAT.

This is a small Plant, which frequently covers the whole Surface of Ponds and Ditches, consisting only of small, round, green Leaves; having neither Flower nor Seed perceivable; only from the Middle of the under Side of each Leaf, small, white, thready Roots.

Ducks-meat is of a cooling mollifying Nature, good to be applied to Inflammations, St. *Anthony's* Fire, or the Shingles; also for

for the Gout, either applied by itself, or mixed with Barley-meal. Six Ounces of a strong Infusion, made in White-wine, taken for nine Days together, is commended as a Cure for the Jaundice. *Miller's Bot. Off.*

Tragus, *Matthioli*, and *Dalechampi*, fancied they observed, that this little Plant, taking Root in the Ground, became like some Species of Water-cress; but they seem to be mistaken: This Story is something like that of the Shells producing Sea Ducks.

The Ducks-meat is thought to be very cooling and lenifying. Some apply it as a Cataplasm to ease the Gout and Inflammation of the Parts; but the repelling of the Humours is to be feared in these Sorts of Remedies: For which Reason, to assuage the Pain of the Hæmorrhoides, powder two Handfuls of Ducks-meat with half an Ounce of Myrrh: Put it all in a Linen Bag, and bathe the Piles with the Water which drops through this Bag. *Martyn's Tournefort.*

2. Lenticula; palustris; major. *Commel. Ind.* 63.

3. Lenticula; aquatica; trifolca. *C. B. P.* 362. *J. B.* 3. 786. *Hederula aquatica.* *Lob. Ic.* 2. 36. *Boerb. Ind. alt. Plant. Vol.* 1. p. 19.

LENTICULA likewise implies a Freckle, or small Pustle on the Skin of the Face and Breasts; see EPHELIS; where the Cure of these is directed from *Celsus*, *Lib.* 6. *Cap.* 5. *Lenticularis Febris* is a Species of Fever, attended with numerous Eruptions, about the Size of Lentils. *Lenticulares Glandulæ* are the small Glands of the Intestines, thus called on account of their Size.

LENTICULARE. A Lenticular; a surgical Instrument. See *Tab. XXVIII. Fig.* 3, 4, and 5. They are called Rugines.

LENTIGO. A Freckle.

LENTISCINUM VINUM. Wine impregnated with Mastich.

LENTISCUS.

The Characters are;

The Leaves are pinnated, and grow to one common Rib, without an odd one at last. The Male Flower, which grows on one Male Plant, is thus produced: The End of the Pedicle opens into a short, green, quadrifid Calyx, expanded in form of a Star; within which arise four, five, or six short Stamina, with large red Apices, these Flowers are collected into a Tuft. The Ovary, on the other Female Plant, grows close to the Apex, of a long, thick, and sometimes ramous Pedicle, cloven at the End, as it were, in the Form of a Calyx: This Ovary is furnished with a strait thick Tube, whose Apex is expanded into three or four very rough reflexed Lips. *Boerb. Ind. alt. Par.* 2.

Boerhaave mentions three Species of this Plant; which are,

1. Lentiscus; vulgaris. *C. B. P.* 399. *Lentiscus.* *J. B.* 1. 285. *Dod.* p. 871. *Lugd.* 63. *Femina.* COMMON MASTICH-TREE.

The Mastich-tree, in its native Places, will grow to be a Tree of some Bigness, having many crooked Branches, cover'd with an Ash-coloured Bark. The Leaves consist, generally, of four Pair of Pinna, without a single one at the End, set on a Foot-stalk, which has a narrow Film on each Side; they are in Shape like those of Myrtle, but larger, harder, and firmer. The Flowers grow in Clusters, being small and stamincous; and after them follow small blackish Berries. The Mastich-tree grows in the Southern Parts of *France*, and in *Italy*; but it yields the Gum Mastich only in the Island of *Scio*, or *Chios*, in the *Archipelago*. The Gum of the Wood is used.

The Gum, which is the Mastich of the Shops, is procured from the Body, or the greater Branches of the Tree, by cutting them across, in the Beginning of *August*; the Gum flowing out in Drops from the Wounds. It is an hard, brittle, resinous Gum, almost transparent, of a whitish Colour, tending to a yellow, but turning white, and clinging together, if chew'd in the Mouth: It comes over in small, yellow, almost pellucid Drops, of a pleasant Smell, of a resinous, and somewhat restraining Taste.

Mastich is heating and drying; strengthens the Head, and the nervous System; helps a Cough, and Spitting of Blood; strengthens the Stomach, and stays Vomiting: It is very good to preserve the Gums and Teeth; the Ladies in *Turkey* chew it continually, for that Purpose, and to procure a sweet Breath. It is applied, outwardly, in Plaisters, for the Head-ach and Tooth-ach. The Wood is drying and binding, good for all kinds of Fluxes. A Tooth-pick made of it is accounted a Preserver of the Teeth.

Official Preparations are, the Emplastrum de Mastiche, and the Unguentum Mastichinum. *Miller's Bot. Off.*

Mastich is a Resin of a transparent Gold Colour, and, when burnt, of a very agreeable Smell: It may be chewed like Wax; whereas Sandracha breaks under the Teeth, and by this these two Substances may be distinguished. It is used inwardly, from half a Scruple to a Dram, in Diarrhœas and Hæmorrhages, and is an Ingredient in many purgative Compositions, as a Corrector. *Geoffroy.*

Mastich is recommended in a Prolapsus Ani, or Uteri; it cures a Næve, and provokes Urine. *Dioscorides.*

It blunts and corrects the Acrimony of Cathartics; strengthens the Head, and the nervous System; and cures Coughs and Spitting of Blood. *Schroder.*

2. Lentiscus; vulgaris; foliis minoribus & pallidioribus. *H. L. maf.*

3. Lentiscus; vera; ex Insulâ Chio; cortice & foliis fuscis. *J. Commel. Cat. Hort. Amst.* 192. *C. Commel. Plant. Usu.* 83. *Boerb. Ind. alt.* 2. 174. *Lentiscus.* *Offic.* *Lentiscus ex Chio, ex qua fluit Mastiche.* *Ind. Med.* 73. *Tourn. Itin. Ed. Angl.* 1. 285. THE MASTICH-TREE.

It grows plentifully in the Island of *Scio*, and flowers in *March* or *April*. The Parts in Use are, first, the nodous and brachiated small Branches, which are of the Thickness of a Man's Finger, white on the Inside; but cover'd with an Ash-colour'd Bark, and of a resinous Taste and Smell; the other Part of Use in Medicine is the *Resina Mastiche Offic.* MASTICH.

Dale says, this is the true Mastich-tree, and differs in Species from the preceding.

LENTISCUS PERUANA. See MOLLE.

LENTOR. A Viscidity or Siziness.

A viscid or sily State of the animal Fluids is productive of many Distempers: Thus *Boerhaave* informs us, that a pinguious Viscidity, from vegetable Aliment, is caused,

First, By a Diet of crude and unfermented farinaceous Substances, and austere immature Vegetables. For the Meal of farinaceous Vegetables, mixed with Water, forms a viscid kind of Paste; but Fermentation destroys this Viscidity.

Secondly, By a Defect of good Blood; a sufficient Quantity of which is necessary to the Assimilation of the Aliments, and the Conversion of their Juices into good Blood.

Thirdly, By a Debility of the Vessels and Viscera, (see FIBRA) or a Defect and Inactivity of the Bile; which last is very powerful, when in a due State and Quantity, in attenuating Viscidities of alimentary Substances.

Fourthly, By a Diminution of animal Motion; for Motion strengthens the Solids, attenuates the Fluids, and promotes the due Digestion and Assimilation of the Aliments.

Fifthly, By a Dissipation of the most fluid Parts of the Blood, through the relax'd sécerning Vessels; for it is evident, that when the most fluid Parts are lost, what remains must become more thick and viscid. Hence the Error of those is obvious, who preposterously carry off the finest Particles of the Blood by enormous Quantities of Sudorifics and Diuretics.

Sixthly, By the Retention of the thicker Parts of the Fluids, on account of the Debility of the excretory Organs. See FIBRA.

This Viscidity is originally form'd in the first Organs of Digestion; from whence it is propagated to the Blood, and the Fluids thence derived: And when any of these viscid Particles pass the Lacteals, and get into the Blood, their immediate Effects are, principally, manifest in the Lungs, where they cause a Dyspnoea, not being able to pass readily the small Vessels thereof.

The Effects of such a Viscidity in the first Organs of Digestion, are,

An utter Prostration of Appetite; and of this I have seen frequent Instances, in those that have destroy'd these Organs, by drinking Drams: These utterly lose their Appetite, and, when they vomit, discharge a viscid Substance, sometimes much resembling Frogs-spawn.

A Sense of Repletion, Nausea, and Inclination to vomit, because these Viscidities, adhering to the Coats of the Stomach, excite an uneasy Sensation, in the manner a Feather does, when thrust down the Throat.

A Crudity of the Aliments taken in, because they cannot be digested.

Hence, likewise, the Bile is render'd inert and unactive, being, as it were, inviscated by these Viscidities, and carried along with them through the intestinal Tube, and lost.

Hence, also, arise pituitous, and, as it were, vitreous Concretions of the Stomach, and intestinal Tube, which are productive of excessive Pains, when adhering to the Coats of these Organs.

Costiveness, and Tumors of the Belly, are, moreover, excited, for want of a proper Stimulus from the Bile, and a Retention of the gross viscid Fæces: This is frequent in Children.

Hence, also, a due Preparation, Perfection, and Secretion of the Chyle is prevented.

In the Blood, Siziness, Paleness, and Immeability, are generated: In the Vessels, Obstructions, and Concretions. Hence, also, pale and insipid Urine, viscid Saliva, and leucophlegmatic Tumors. The due Secretions are, likewise, prevented, and the more subtle Parts of the Fluids become deficient; whence a Co-alition of the smallest Canals is induced.

It is obvious, that from these Causes all the Digestions, Circulations, Secretions, Excretions, and the vital, natural, and animal Motions must be disturbed; whence a Suffocation of the Circulation, and Death, must ensue.

From what has been said above, the Diagnostic, Prognostic, and Anamnesis, relative to Disorders proceeding from glutinous Viscidity, may be collected, and the proper Methods of Cure are indicated.

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With respect to the Cure; it is to be performed, first, By a constant Use of Aliments and Drink well fermented, and duly seasoned with attenuating Salts, and Aromatics. For Fermentation destroys the Viscidity of all the farinaceous Vegetables. Rice, or Oats, boiled, make a kind of Jelly, or Glue, which is destroyed by Fermentation. Beer, well fermented, does not cause Phlegm; but Ptisans will: Therefore, in cold languid Diseases, strong Beer is proper; and in hot inflammatory Disorders, Ptisans. *Boerhaave* says, that strong Beer is a most noble Remedy in these cold Disorders, arising from Viscidity; and affirms, that he has known many Cures performed by the Use of *Brunswick* Mum, and well fermented Biscuit, only.

Aromatics incide and destroy the Viscidity of the fizy Humours. The principal of these are Cinnamon, Mace, Nutmegs, Orange-peel, Thyme, Origanum, aromatic Cloves, Ginger, Pepper, the lesser Galangals, Citron-peel, Anise, Coriander, Mother of Thyme, and Cardamoms.

Secondly, By Broths made of Animals abounding with exalted volatile Salts; such are those mentioned under the Article ACIDA, as Remedies for Disorders proceeding from a Redundance of Acid; and these Broths must be seasoned with such acid Vegetables as those directed under the same Article, for the Cure of Diseases arising from an Acid.

Thirdly, By strengthening the Vessels and Viscera. See FIBRA.

Fourthly, By Exercise and Motion; for, without a due Degree of these, nothing can relieve, at least cure. See FIBRA.

Fifthly, By diluting, resolvent, stimulating, bilious, and saponaceous Medicines.

Materials proper for diluting and resolving are specified under the Article FIBRA.

Stimulating Medicines are such as by their Bulk, Density, Figure, and Mobility, increase the contractile Force of the Fibres, when applied to them. The principal of these are,

First, Saline Acids; and these are either natural, as the Juices of Citrons, Oranges, Grapes, and other acid Summer-fruits, and the native Salts procured from the pressed Juices of Vegetables; or produced by Fermentation, as *Rhenish* and *Moselle* Wine, Vinegar of Wine and of Beer, Spirit of Vinegar, Tartar, Cream of Tartar, sour Milk, and sour Whey; or produced by Fire, as Spirit of Sea-salt, of Sal Gem, of Nitre, of Vitriol, and of Sulphur by the Bell.

Secondly, Alkaline Salts, which are either fixed or volatile; fixed alkaline Salts are all those prepared from the Ashes of Plants, as Salt of Wormwood, of *Carduus Benedictus*, of Tartar, and Pot-ash. Volatile Salts are all those distilled from putrefied animal Substances, as Salt and Spirit of Hartshorn, of human Blood, of Bones, and of Sal Ammoniac.

Thirdly, Compound Salts, as Sea-salt, Sal Gem, native and artificial Sal Ammoniac, Nitre, Borax, Tartarus Tartarizatus, and Tartarus Regeneratus.

Fourthly, Acrid aromatic Oils; as the distilled Oils of Wormwood, of Citron-peel, of Orange-peel, of Cassia Lignea, of Chamomile, of Cinnamon, of aromatic Cloves, of Hyssop, of the Woods of Guaiacum, Juniper, and Sassafras, of Mace, of Marjoram, of Mint, of Nutmegs, of *Cretan* Origanum, of Penny-royal, of Rose-wood, of Rosemary, of Rue, of Savine, of Sage, of Lavender, of the Seeds of Anise, Dill, Carawaies, and of Fennel, of Amber, of Tansy, and of Turpentine.

The Oils, by Expression, of bitter Almonds, of Bay-berries, of Mace, and of Nutmegs.

The native Oils; as Balsam of *Gilead*, of *Tolu*, of the Palm, of *Peru*, of *Capivi*, of *Mecca*, and of Turpentine.

The empyreumatic acrid Oils, distilled by the Retort; as of Blood, of Bones, of Horns, of Eggs, of Urine, of Woods, and of Bricks.

Fifthly, Inflammable Spirits produced by Fermentation, from farinaceous Vegetables, and the Juices of Summer-fruits.

Sixthly, Acrid aromatic Plants, such as abound with Salt and Oil; as Leaves of Southernwood, Wormwood, Maudlin, Dill, Anise, Birthwort, Arum, Betony, Calamint, Motherwort, German-her, the greater Celandine, Scurvy-grass, Dittany, noble Liverwort, Erysimum, Hemp Agrimony, Fennel, Ground-ivy, Ivy, Hyssop, Bays, Lovage, Marjoram, Horehound, Feverfew, Baum, Mint, Cresses, Nep, Tobacco, Origanum, Dittander, Arsmart, Leeks, Pennyroyal, Rosemary, Rue, Savine, Savory, Sage, Water-Germander, Mother of Thyme, Soldanella, Thyme, Tansy, Paul's Betony, and Nettles.

The Flowers of Maudlin, Oranges, Marigolds, Clove-gilly-flowers, lesser Centaury, Chamomile, Citrons, Saffron, Eupatorium, Lily of the Valley, Hops, Melilot, Marum Syriacum, Sage, Scabious, Camels Hay, Lavender, *Arabian* Stoechas, Tansy, and of the Lime-tree.

The Roots of Acorus, Garlick, Angelica, healthful Wolfsbane, Birthwort, wild Radish, Carline-thistle, Caryophyllus montanus, Onions, the greater Celandine, Contrayerva, Garden and Oriental Costmary, Turmeric, Sow-bread, Cyperus, Leopardsbane, Fraxinella, bulbous Fumitory, Galangals, Gentian, Elecampane, Masterwort, Orris, Loveage, Spignel, Ginseng, Rest-harrow, Butter-bur, Parsley, Sow-fennel, Peony, Leeks, Sneez-

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wort, Pellitory of *Spain*, Radish, Maddar, Butchers-broom, Satoryon, Figwort, Sefeli, Squills, Valerian, Ramsons, Swallow-wort, Zedoary, and Ginger.

The Seeds of Dill, Anise, Smallage, Columbines, Carawaies, Celeri, Coriander, Cumin, Carrot, Rocket, Erysimum, Fenu-greek, Lovage, Navew, Cresses, Fennel-flower, Parsnep, Parsley, Leeks, Radish, Wormwood, Sefeli, Mustard, Treacle-mustard, Anacardium, Cardamoms, Burdock, the Grains of Chermes, and the Seed of Cubebs, Juniper, Bays, Nutmegs, and Peach-kernels.

The Barks of Guaiacum, Sassafras, Juniper, Oranges, Citrons, Lemons, and Cinnamon.

Aromatic Juices; as Asaferida, Gum Ammoniac, Anime, Bdellium, Benzoin, Gum Elemi, Galbanum, Gum Lac, Labdanum, Mastich, Sagapenum, Juniper, Tacamahaca, Ambergrise, liquid Amber, Aloe, Myrrh, Storax, and Frankincense.

Seventhly, Insects; as Millepedes, Ants, May-worms, and Cantharides. And, also, the Parts of some Animals; as Castor, Civet, Musk, Urine, and the Dung of Birds which drink but little.

Eighthly, Decoctions, Extracts, Conserves, Preserves, Tinctures, Spirits, Waters, volatile, oleous, and spirituous Salts, Pills, and Powders prepared from these Materials.

Bilious Medicines are the Galls of Quadrupeds, and Fishes, especially of the *Lupus marinus*, and Eel.

Take, for Example, of the Gall of a Bull, and of the *Lupus marinus*, each four Drams; let them exhale over a gentle Fire, till they acquire the Consistence of Honey; then mix them with a sufficient Quantity of the powdered Root of Arum, and make the Whole into Pills, of three Grains in Weight each. Take one every Morning, Noon, and Night, an Hour before Meals.

To this Class belong the *Lapis Hystricis*, or *Pedra del Porco*, an Infusion of which in the Water of *Carduus Benedictus*, or *Rhenish* Wine, is exhibited in the Quantity of two or three Ounces. And the Preparation, recommended by *Helmont*, of the Gall and Liver of an Eel, roasted by a gentle Fire, and given in the Quantity of a Dram, with three Ounces of *Rhenish* Wine.

Among saponaceous Medicines, none is more recommended in these Cases, than *Venice* Soap, made into Pills, with the Addition of a small Quantity of Bile; for these not only dissolve Viscidities, but supply, in some Degree, the Defect of the Bile.

Sixthly, Frictions; Heat, excited by Exercise; Baths, prepar'd with aromatic Vegetables; or dry Baths, as they are called; or Stoves and Vescatories, either of stimulating Vegetables, or Cantharides, contribute to the Cure of these Disorders.

But, in the Cure of these Disorders, great Care must be taken not to mistake, for a morbid Viscidity, that useful, natural, and glutinous Juice, which anoints, lubricates, and defends, many Parts of the Body; and is particularly remarkable in the Eyes, Eyelids, Nose, Mouth, Fauces, Oesophagus, Stomach, Intestines, Pelvis, Ureters, Bladder, Urethra, the mucilaginous Vaginae of the Tendons, the Commissures of the Joints, the Larynx, Aspera Arteria, and Bronchia of the Lungs. For in these it is natural and necessary for defending the Parts from the Effects of Acrimony, to which they would otherwise be exposed. Unskillful Practitioners, who look upon every thing that is thick and tenacious, to be morbid, and treat it accordingly, on this Occasion frequently fall into fatal Errors, to the great Prejudice of their Patients.

This Species of Viscidity I have now been treating of, is directly the Reverse to an inflammatory Spissitude; and those Substances, which are medicinal in this, are poisonous in the other; and *vice versa*. See INFLAMMATIO.

LEO is a Name for a Species of Insect called the Lion-pismire, for a Sea Animal, for a Shell-fish of the Lobster kind, for the Serpent called *Cenchrites*, for the Leprosy, and is a Term given by the Spagirists to some of their Preparations; all figuratively denominated from

LEO. Offic. Aldrov. de Quad. Digit. 2. Gesn. de Quad. Digit. 572. Jonf. de Quad. 78. Chart. Exer. 14. Schw. Quad. 101. Raii Synop. a. 162. THE LION.

The Fat only is in Use; which, washed according to the Directions given by *Dioscorides*, (for which see the Article ADIPS) and put into the Ears, eases the Pains thereof; and is successfully used to anoint Limbs benumbed with Cold: Some use it for scirrhus Tumors, and Chulblains.

LEO FEROX. Ger. *Acarna affinis Leo ferox*. J. B. *Acarna minor caule non folioso*. C. B. *Acarna minor caule non folioso*, five *Leo & Carduus ferox*. Park.

This is a Species of Acarna, or Fish-thistle, mentioned by Ray; but of no Use in Medicine.

LEONTIASIS, λεοντίασις, LEONTION, λεοντίον, and LEONINA LEPPA, are Names for the ELEPHANTIASIS. See LEPPA.

LEONTOPETALON.

The Characters are;
roset has a thick, tuberos, perennial Root. The Flower is
whaceous, pentapetalous, or hexapetalous, naked, and furnished
with

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with five Stamina. The End [of the Pedicle of the Flower forms an orbicular Placenta, seated within the Flower, on which Placenta grows the Ovary, furnished with its Tube, or Pointal, which becomes an angulous, simple, acuminate Bladder, from the Centre of whose Bottom arises a strait Axis, surrounded by globulous Seeds growing to it.

Boerhaave mentions but one Species of this Plant; which is, *Leontopetalon*. *Offic. Ger.* 182. *Emac.* 236. *C. B. P.* 324. *Boerb. Ind. A.* 208. *Raii Hist.* 2. 1326. *Park. Theat.* 682. *Leontopetalon quorundam*. *J. B.* 3. 489. *Leontopetalon foliis Costæ ramosæ innascentibus*. *Tourn. Corol.* 49. **BLACK TURNER.**

It grows in *Apulia* in *Italy*, and flowers pretty late in the Year. The Root is in Use; which, according to *Dioscorides*, cures the Bites of Serpents. *Galen* ascribes to it a digestive, heating, and drying Quality. *Dale.*

LEONTOPODIUM. *Offic. Leontopodium majus*. *Park.* 684. (*quoad descript.*) *Gnaphalium Alpinum*. *Germ.* 517. *Emac.* 641. *Gnaphalium Alpinum magno flore, folio oblongo*. *C. B.* 264. *Gnaphalium Alpinum pulchrum*. *J. B.* 3. 161. *Raii Hist.* 1. 296. *Filago Alpina capite folioso*. *Tourn. Inst.* 454. **LIONS-FOOT.**

It grows on hilly Places, and flowers in *July*. The Root, worn as an Amulet, is said to perform the Effects of a Philtre, and to discuss Tubercles. The Herb, bruised and boiled in Oil, is successfully used by the common Sort of People for Lividness, Bruises, Concussions, Contusions, and other ill Effects of Blows and Strokes. *Lob. Buxb.*

Leontopodium, Creticum. A Name for the *Plansago*; *Cretica*; *minima*; *tomentosa*; *caule adunco*.

LEONURUS. *Lions-tail.*

The Characters are;

The Calyx is long, tubulated, and incloses the Seeds; the Galea is imbricated, and much longer than the Beard, which is divided into three Parts. The Flowers are disposed in very close Whorles.

Boerhaave mentions three Species of this Plant; which are,

1. *Leonurus*; perennis; Africanus; sideritis folio; flore phœnicco, majore. *Breyn. Prodr.* 2.
2. *Leonurus*; minor; Capitis Bonæ Spei vulgo.
3. *Leonurus*; annuus; Americanus vulgo. *Boerb. Ind. alt. Plant. Vol.* 1. p. 180.

There are no medicinal Virtues attributed to either of these Plants at present, that I know of.

LEOPARDUS. See **PARDUS.**

LEPAS. A kind of Shell-fish, adhering to Rocks. *Galen. Exeg.*

LEPHANTEUS, or LEPHANTE. The first Species of Tartar, of a middle Nature betwixt Stone and Mud, and admits of being cut. *Rulandus.*

LEPIDIUM.

The Characters are;

The Fruit is like the Head of a Spear, and full of Seeds, which are, for the most part, of an oblong Figure.

Boerhaave mentions four Species of this Plant; which are,

1. *Lepidium*; latifolium serratum. *Boerb. Ind. A.* 2. 9. *Lepidium, Piperitis*. *Offic. Lepidium latifolium*. *C. B. P.* 97. *Raii Hist.* 1. 828. *Synop.* 3. 304. *Tourn. Inst.* 216. *Lepidium Pauli*. *J. B.* 2. 940. *Lepidium Pauli & Plinii Piperitis*. *Chab.* 296. *Lepidium Æginetæ*. *Mer. Pin.* 71. *Piperitis sive Lepidium vulgare*. *Park. Theat.* 855. *Raphanus sylvestris Officinarum, Lepidium Æginetæ Lobelio*. *Ger.* 187. *Emac.* 241. **DITTANDER.**

The common Dittander has a small, white, slender, creeping Root, hard to be got out of a Garden, where it has been once planted. The lower Leaves grow on long Foot-stalks, are smooth, oblong, sharp-pointed, and serrated, four or five Inches long. The Stalks grow to be half a Yard high, smooth, and having lesser and narrower Leaves growing alternately; sometimes indented about the Edges, and sometimes not. The Flowers that grow on the Top of the Stalks are small, white, and four-leav'd, and the Seed-vessels small and round. It grows in moist Places near Rivers, and flowers in *June* and *July*. The whole Plant has a hot and biting Taste, like Pepper.

The Leaves of Dittander, bruised and mixed with Hog's-lard, and apply'd as a Cataplasm to the Hip, help the Sciatica; chew'd, they cause a great Flux of Rheum to run out of the Mouth, and by that means are said to help scrophulous Tumors in the Throat. The Women, in *Suffolk*, give them boiled in Ale, to hasten the Birth. *Miller's Bot. Off.*

This Plant gives a deep-red Colour to blue Paper; it is acrid, aromatic, and tastes like Pepper and Mustard. The Salt of the Dittander seems to resemble the *Terra foliata Tartari Mulleri*, but is united with a little oily volatile Salt.

Thus this Plant is antiscorbutic, stomachic, and good for hypochondriac Disorders; a Tincture is drawn from it with Spirit of Wine, or it may be drank in a Pilsen: The Root is bruised with fresh Butter, and apply'd to the Parts affected with the Gout. *Martyn's Tournefort.*

2. *Lepidium*; glastifolium. *C. B. P.* 97. *Lepidium non repens*. *J. B.* 2. 941. *Cochlearia, altissimo folio*. *T.* 215.
3. *Lepidium*; gramineo folio; sive Iberis. *Tourn. Inst.* 216. *Boerb. Ind. A.* 2. 9. *Iberis*. *Offic. J. B.* 2. 948. *Iberis latiore folio*.

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C. B. P. 97. *Park. Theat.* 853. *Iberis Cardamantica*. *Germ.* 197. *Emac.* 253. *Lepidium angustifolium Tournefortii, Iberis Officinarum S. Dale*. *Rupp. Flor. Jen.* 67. **SCIATICA CRESSÉS.**

The lower Leaves of this Cress are two or three Inches long, and about half an Inch broad, indented pretty deeply about the Edges, and growing on long Foot-stalks. The upper Leaves are long and narrow, not cut in, and set on without Foot-stalks; it arises to be a Foot high, or more, branch'd, and bearing on the Top Spikes of small, white, four-leav'd Flowers, succeeded by round Seed-vessels, containing small redish Seed. It grows wild in the warmer Countries, but with us, only in Gardens, and flowers in *June*.

The Leaves and Roots are commended by the Antients against the Sciatica, being beaten in a Cataplasm with Hog's-lard, and apply'd to the Part affected, and kept on four Hours to a Man, and two to a Woman, the Place afterwards being washed with Oil and Wine; but, at present, it is but rarely us'd. *Miller's Bot. Off.*

They resemble Nasturtium in Smell, Taste, and Virtues, only they are less drying. *Galen.*

4. *Lepidium*; humile; minus; incanum; Alepicum. *T.* 216. *Draba, Chalepensis, repens, foliis minus cinereis & quasi viridibus*. *M. H.* 2. 314. *Boerb. Ind. alt. Plant. Vol.* 2. p. 9.

LEPIDIUM is also a Name for the *Plumbago quorundam*.

The *Lepidium* is also a Name for the *Draba*. *Offic. Draba Dioscoridis*. *Ger. Emac.* 274. *Draba vulgaris*. *Park. Theat.* 849. *Raii Hist.* 1. 821. *Draba umbellata, vel Draba major capitulis donata*. *C. B. P.* 109. *Draba sive Arabis*. *Chab.* 295. *Draba multis flore albo*. *J. B.* 2. 939. *Draba, Lepidium humile incanum arvense*. *Tourn. Inst.* 216. *Thlaspi Draba dictum*. *Buxb.* 318. **ARABIAN MUSTARD, or TURKEY CRESSÉS.** *Dale.*

It is cultivated in Gardens, and flowers in *June*; the Herb and Seed are used. The Herb is boiled with Prisan, especially in *Cappadocia*; and the dry Seed serves instead of Pepper for Seasoning of Meats. *Dioscorides.*

LEPIDOCARPODENDRON, from *λεπίς*, Scales; *καρπός*, Fruit; and *δένδρον*, a Tree.

The Characters are;

The Leaves are entire, and generally disposed in a disorderly Manner. The Calyx consists of a Multitude of Leaves, placed one upon another, after the Manner of Scales, in different successive Orders; when mature, it is contracted into the Shape of a squamous Vessel, which closes itself. The Flowers, which are numerous, are composed of a Multitude of Floscules, fill the Bottom of the Calyx, and are apetalous, anomalous, capillaceous, and hermaphrodite. From the Middle of the Flower proceeds the Ovary, furnished with one or more long Tubes, and growing in an oblong Case, which ends in two long Filaments. The Seed is adorned with a long Filament, having a small Feather on its Apex.

Boerhaave mentions twelve Species of this Plant; which are,

1. *Lepidocarpodendron*; folio saligno lato; caule purpureo-fescente.

This grows near the Cape of Good Hope.

The Bark of it is recommended in a Diarrhœa.

2. *Lepidocarpodendron*; folio subrotundo, rigido; in pedunculo longo, crasso; flore maximo, purpureo.
3. *Lepidocarpodendron*; folio oblongo, viridi; limbo rubro ornato; squamarum apice; & margine, lanuginosis.
4. *Lepidocarpodendron*; foliis angustis, longis, salignis, nervo rubro; florum plumis violaceo-purpureis.
5. *Lepidocarpodendron*; foliis angustis, brevioribus, salignis; calycis squamis elegantissime ex roseo, aureo albo, atro rubro variegatis; florum plumis albis.

The Flower abounds with a sweet and wholesome Liquor, which the Inhabitants of the Country where it grows are very fond of.

6. *Lepidocarpodendron*; foliis angustis, longioribus salignis; calycis squamis elegantissime ex flavo, fusco, albo, nigro variegatis; florum plumulis, atropurpureis.
7. *Lepidocarpodendron*; folio saligno viridi; nervo & margine flavo; cono longo, superiori parte maxime clauso.
8. *Lepidocarpodendron*; foliis longissimis, angustissimis, fructum elegantissime ex rubro, flavo, & albo, variegatum, instar Coronæ succingentibus; radice repente.
9. *Lepidocarpodendron*; acaulon; foliis paucis, latis, nervo & marginibus, rubris ornatis; fructu parvo.
10. *Lepidocarpodendron*; acaulon; ramis numerosis e terra excrefcentibus; calyce floris immaturo exius, ex rubro & flavo, variegato, intus flavo.
11. *Lepidocarpodendron*; foliis angustissimis, gramineis; cancellato; semine coronato.
12. *Lepidocarpodendron*; foliis sericeis, brevibus, confertissime natis; fructu gracili, longo. *Boerb. Ind. alt. Plant. Vol.* 2. p. 183.

LEPIDOIDES SUTURA. From *λεπίς*, a Scale, and *ἴσος*, Form. A Name for the squamous Suture of the Skull.

LEPIDOSARCOMA. A Name given by *Marcus Aurelius Severinus*, to an uncommon Tumor, found in the Mouth, which was a *Sarcoma*, full of irregular Scales.

LEPIS,

LEPIS, λεπίς. A Scale, as of Metal; or the Husk, or Hull of Seeds.

LEPORINA LABRA. Hare-Lips. *Rostrium Leporinum* is a Piece of Flesh appearing betwixt the Divisions of the Hare-Lip.

LEPRA. The Leprosy.

In treating of pustulous and pruriginous cutaneous Disorders, which being accompanied with Itching, Pain, Heat, Inflammation, Exulceration, and various Symptoms, arise from an impure, acrid Serum, stagnating between the exhaling Vessels and the nervous and tendinous small Fibres of the Skin, and corroding them; it will not be improper to premise, that each of these Disorders of the Skin have very different Denominations, according to the different Acrimony of the peccant Humour, and the Degree of the subcutaneous Disorder. Thus they are called the Itch, moist and dry, virulent, malignant, and venereal, a Pfora, a Serpigo, a Leprosy, an Impetigo, and Elephantiasis, an Herpes miliaris, or Exedens, the Tinea Capitis, and Gutta Rosacea, all which we shall briefly and accurately explain.

The most gentle Degree of these Disorders is a benign Itch, whether moist or dry; which, appearing in the Joints principally, at the Beginning, insensibly and gradually spreads through the remaining Parts of the Body, except the Head only. In the moist Kind, indeed, which seizes Infants principally, and Children, who are sanguine, phlegmatic, and of a spongy Habit of Body, the Pustules are turgid with a sanious, purulent Humour, and it is attended with a greater Inflammation, which, from a redish Circle about its Edges, degenerates to a Suppuration. To this Class we ought, also, to refer the small running Ulcers in the Heads of Infants, called ACHORS. But in the dry Kind, to which lean, old Persons, and those of a melancholy, choleric Temperament, are most subject, the Pustules are of a smaller Size, and replete with a little serous Ichor, which, by irritating the highly tender Fibres of the Nerves under the Cuticula, bring on an almost intolerable Heat and Itching.

When the dry Itch is scaly and crusty, and, after the Abrasion of the Cuticle or Eschar, leaves bloody Spots under the Skin, it, upon the Approach of Heat, produces a painful and almost intolerable Itching, and is cured with very great Difficulty, or, being cured, returns very readily. This Disorder is called Impetigo, a Tetter, or a virulent Itch, and is most familiar to scorbutic Persons, and those afflicted with a serous Cacochymy; and, if it is in a great Degree, it is termed a leprous Pfora. The Curious may consult *Barbette* in his *Chirurgia*, Lib. 1. Cap. 8. and *Wepfer*, *Observ.* 214. and in the worst Kind of this Disease the Head is very often affected, and a Crust grows all over the Body, without excepting even the Face, Lips, and Hands. Besides, the whole Skin, becoming ulcerous, discharges a serous, corrosive Sanies, and the Cuticula is soon after separated, so that dry Scales may be easily taken off, whilst the subjacent Skin, which is of a dark-red Colour, discharges an acrid Moisture. Hence a fetid Smell is produced, and the Patients, having a keen Appetite, complain of an insatiable Thirst.

But if this Species of the Itch, succeeding a Gonorrhoea, Buboes, and other Disorders of the Genitals, not only seizes the whole Body, but particularly the Face, and is attended with Nodes and Tophi, of various Parts; and if the Pains, which accompany it, being corroding, penetrating, intense and pungent, increase in the Night; the Disorder is called venereal, and malignant.

As the Herpes miliaris propagates itself, as it were, by creeping, it is, by some, termed a Serpigo, and, possessing only the Surface of the Body in certain Places, such as the Legs, Thighs, Hands, Scrotum, and Perinaeum, excites many small Eminences in the Skin, or little pruriginous Pustules, without Moisture, and as large as a Millet-seed, which, when the Scales come off, disappear indeed, but return, at certain Periods of Time, in the same Places. Sometimes the Head itself, likewise, is infected with such an Herpes; as *Helwigius*, in *Observ. Physico-medica*, Obs. 38. affirms. To this Class we may, also, refer that Species of Scurf, which is principally familiar to old Men, affects the Skin with an almost intolerable Itching, without Pustules and Papulae, and requires a perpetual Scratching with the Nails: Sometimes, also, it attacks the Pubes and Scrotum separately, and sometimes the End of the Intestinum Rectum, especially when the Hemorrhoids begin to cease through an Excess of Age, or any other Misfortune.

The Herpes exedens, which *Hippocrates* only calls an Herpes, and *Celsus*, Lib. 5. Cap. 18. *Sacer Igus*, and which is not unlike an ulcerous Erysipelas, corrodes the whole Skin, to the subjacent Flesh, with an Ulcer, and separates it into Scales, sometimes thick, and sometimes thin, especially about the hairy Parts of the Head; and, when it disappears, it leaves hard Tumors on the Part affected.

But when an Herpes of the malignant Kind seizes the Breast and Pectoria, and is accompanied with a Cardialgia, preternatural Heat, Itching, Inflammation of the Skin, painful Exulceration, and small and lucid Pustules, like a Belt dispersed on the Breast for a Hand's Breadth, the Disorder is termed *Zona Ignea*, or the Shingles. See *Morus Aurel. Severini*, Lib. 4. de *Abstectione*.
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bus, Cap. 9. *Nicol. Tulpius*, Lib. 3. *Schulzius*, *Ann.* 3. *Ephem. Obs.* 4. who observ'd it prove fatal, and *Jo. Langius*, who observed it to have arisen from an Ulcer of the Leg, preposterously and unseasonably consolidated.

The crusty and scaly Itch, which principally invades the Legs, as far up as the Knees, is, by some, distinguished by the Title of Elephantiasis, while the Legs are tumefied like Bags, upon which pretty large Crusts appear, and these Crusts, being abraded, leave redish Spots uneasy to the Patient by their Itching, and great Vellication; and discharge a thick Humour, which is soon condensed into fresh Scales and Crusts. But the true Lepra of the *Arabians*, or Elephantiasis of the *Greeks*, is a much more loathsome Disease, which *Aretaeus* has given us the best Description of, Lib. 4. Cap. 13. and *Celsus*, Lib. 3. Cap. 25. in this manner: "Almost unknown in *Italy*, but very frequent in some Countries, is that Disease, which the *Greeks* term *ἐλεφαντίασις*, and which is reckoned among the chronical Disorders. By it the whole Body is so disordered, that the Bones are said to be vitiated. The Surface of the Body is covered pretty thick with Spots and Tumors, the Redness of which is, by degrees, converted into a black Colour. The external Skin becomes unequally thick, thin, hard, and soft; and is, in a manner, render'd rough by certain Scales; the Body grows lean; the Face, Legs, and Feet, swell. When the Disease is of long standing, the Fingers and Toes are concealed under a Tumor, and a slight Fever arises, which easily destroys the Patient labouring under so many Disorders."

There is a wide Difference between the Itch and Leprosy, and that ulcerous Disorder, in which white sordid Ulcers, seizing principally the muscular Parts, such as the Back, Arms, Thighs, Legs, and Loins, discharge a putrid Sanies, and sometimes appearing in one Limb, and sometimes in another, often continue for many Years. And this Kind of Disorder is most incident to common People, Beggars, and Persons of mean Stations, who live upon impure and sordid Aliments. Many of our Physicians, also, assert, that *Lazarus* was afflicted with this Disease. Large Quantities of Worms are, also, sometimes found lodged within these Ulcers, so that they can hardly be extirpated by any Remedies.

All these subcutaneous pustulous Disorders principally spread themselves, and infect by Contagion; for which Reason they are easily propagated by lying together; by using Beds, or Clothes, tainted with a foul pinguious Sweat; but above all by the Skins of Animals, and the Clothes made of their Wool: For Wool is the fittest Medium for conveying this Disorder, since, by its lax and porous Sponginess, it absorbs those impure exhaling Particles, and retains them longer, so that they will not be immediately dispersed into the Air. For as Odours, diffused from any fragrant Substance whatever, continue a long time in Linen, Gloves, and Clothes, so likewise in contagious Diseases, as the Plague, Small-pox, Measles, and petechial Disorders, the putrid Effluvia, which are the Fomes of the Disease, by insinuating themselves deeply into those porous Substances, especially when made of Wool, often lie latent for a long time before they exert their Power of Infection.

That the Seat of these Diseases, already enumerated, is the Compages of the Skin, which is tubulous, framed of various Fibres, and the universal Emunctory of the Body, our very Senties sufficiently demonstrate. But, indeed, to speak my Sentiments freely, I am fully persuaded, that the *Membrana Pinguetudinis* of the Skin is the principal Seat and Place where the Fomes of the impure and corrupt Matter primarily resides, which, whilst it cannot transpire freely through the Pores and exhaling Tubes of the Skin, continues there a long time, and by this long Continuance being rendered more acrid, does, by corroding, irritating, and inflaming the nervous Fibres of the Skin, generates various Pustules and Papulae. For, in the whole Body, there is no Part either solid or fluid, which, preserving its proper Crasis, can, for a more considerable time, retain and conceal a fetid and vapid Humour, before, by a fermentative Motion from some peccant Temperament of the Air, it protrudes and expels it from the most latent Places in which it is lodg'd, than the Fat itself, in which, according to my Opinion, the Seeds of the Small-pox and Measles, the Purple Fever, the *Lues Venerea*, and other Disorders of a like Nature, lie concealed for a long time. Besides, as is certain from Experience, Bodies very replete with Fat are not only longer and more grievously afflicted with these Diseases of the Skin, but, also, after a Cure, more easily relapse into their former Disorder, a plain Indication that the Fewel of the Distemper is concealed in the Fat.

But, if we consider the Patients most subject to these Disorders of the Skin, who are principally Infants and Children; as they are obnoxious to the Small-pox, Measles, Aches of the Head, and Defecations of the Skin of all Kinds, so they are principally subject to scabious and pustulous Diseases, not only from the soft and spongy Substance of their solid Parts, and their weak Transpiration, but, above all, for this Reason, because, through the sedentary Life of pregnant Women, and the Weakness of their Digestion, the Juices, by which the Infants are nourished while in the Womb, are not temperate, but im-

part: Hence it is no Wonder, that the tender Bodies of Infants, also, are contaminated with Sordes, and full of superfluous and peccant Humours; which, when, some time after, by a bad Constitution of the Air, the Energy of the contagious Fomes, or any other Causes, they are put into a fermentative Motion, excite innumerable Disorders, and particularly deform the external Parts of the Body with various Eruptions.

'Tis a common Tradition, that Achors, a Tinea Capitis, and the Itch, preserve Infants and Children from the Small-pox and Measles, or at least have Efficacy enough to make them of a milder Sort: But, if it was necessary, I could produce many contrary Instances of Children, afflicted as well with the Itch, as other ulcerous Disorders of the Skin, who, soon after they were cured of these troublesome Distempers, fell into a confluent Small-pox, and Measles of the malignant Sort: From which we may reasonably conclude, that each of these pustulous Distempers has a peccant and corrupted Matter of a peculiar, and, as it were, specific Quality, lodged in the Fat, for its respective Cause.

We now come to give some Reasons, why these Disorders of the Skin are so different in different Patients; and this, as far as I can comprehend, is to be assigned principally to the Difference of their Ages: For, since the Texture of the Skin is greatly changed with the Age, and differs very much in Children and young Persons, from what it is in Adults, and those advanced in Years; hence it happens, that those pustulous Diseases, which differently affect the Skin, assume different Natures and Geniuses, and exert themselves in different Manners. For it is certain, from Physiology, that in the Bodies of Children, and young Persons, there are more small Canals in the Skin, a greater Number of Pores, and open Orifices, in its Surface, than in Adults, and Persons farther advanced in Years, where the Vessels are rendered narrower, coalesce, and become solid. Thus in old Men the cellular Interstices of the Membranes of the whole Body, and particularly those between the Skin, and subjacent Parts, are less replete with a pinguious Humour, in consequence of which Wrinkles are formed. Hence, through a Defect of Fat, the exhaling Vessels and Pores of the Skin are contorted, incurvated, and compressed. From what has been said, it will be no difficult Task to assign a Reason, why, in Old-age, the dry Itch, a Serpigo accompanied with an intolerable Itching, and an Herpes miliaris, are most common; whereas, on the contrary, in Infants and Children of sanguine, phlegmatic, and pinguious Habits, such Disorders are rather produced, as, in consequence of a large Quantity of Fat and Serum, discharge much Sanies. To this we may add, that in Children, and young Persons, especially of a sanguine Temperament, the Blood is intimately mixed with the pinguious, chylous, and nutritive Parts; and for this Reason affords a larger Quantity of Matter and Aliment, not only to sound Bodies, but, also, to such as are, in some measure, decayed and corrupted, than in scorbutic and cacoehymic old Men, whose Blood is generally replete with saline, sulphureous, and viscid unactive Particles.

Farther, that we may know for what Reasons certain Eruptions appear in certain Places, and in some possess the superior, and in others the Trunk, and inferior Parts, I think it must not be omitted, that as several other Diseases, so, likewise, the Disorders of the Skin, generally at stated times, invade certain Parts, according to the different Ages of the Patients. Thus we observe, in Infants and Children, Pavi, Achors, a Tinea Capitis, Epiphoras, purulent Inflammations of the Eyes, and Serpigos appearing frequently on the Forehead and Chin. In young and adult Persons, the Itch, Herpes, and other Disorders, seize principally the Hands, Arms, and Back; and, lastly, in the Decline of Life, or when Old-age comes on, Itchings are perceived in the Anus, Scrotum, and Perineum; and a Psoa, Leprosy, Elephantiasis, and Erysipelas, ulcerate the Feet.

It is also expedient to inquire, why, in different Patients, the peccant Humour, which supports the pustulous and pruriginous Diseases of the Skin, differs so surprisingly in its Acrimony, Viscidity, Consistence, and other Qualities. And this, in my Opinion, depends upon the different Temperament and Tone of the Skin. Hence, when the State of the Skin is spongy, soft, and thin, as it is in sanguine Persons, a greater Quantity of Ichor, Sanies, and purulent Matter, is found collected in the Vesicles; which, being dried, is changed into Scales and Crusts. For two kinds of Humours are contained in the Skin, and secreted from it; the one mucous, which is inclosed in the spongy Cells of the Corpus reticulare, lying immediately under the Skin; and the other sebaceous, which is intently discharged from the cutaneous Vessels and Lacunae: When, therefore, the nervous Fibres, by which the Cuticle is united to the Cutis, are lacerated and corroded by an acrid Humour, the relaxed Epidermis is raised into small Vesicles full of saline Serum; which afterwards open into small Ulcers. But it is otherwise in choleric Patients, those of a more compact Habit of Body, and old Persons, who are rather affected with a dry Itch, and other Pustules and Pimples, filled with none, or but little Moisture: And these Disorders are brought on by a copious Generation of viscid Humours, and the Narrowness of the Tubes of the Skin, induced by a Loss of

the natural Strength; which discovers itself sufficiently, not only by the languid State of all the Functions, but, especially, by the Slowness and Weakness of the Pulse, which shews the Circulation of the Blood and Humours to be faint and languid.

Having said thus much in general of the Diseases of the Skin, we now come to consider their true and genuine Causes, in a more particular manner. Now the genuine, proximate, and immediate Cause of these Disorders is no other than an impure, viscid, and acrid Serum, which, by stagnating in the small Tubes of the Skin, lacerating the nervous Fibres, and producing there a slight Inflammation, produces various Corrosions, Pustules, and Exulcerations; and, consequently, excites all the cutaneous Diseases with the Symptoms already enumerated. But of how peccant and virulent a Nature this corrupted Matter, stagnating under the Skin, is, appears sufficiently from this, that almost all dangerous and mortal Diseases, whether acute or chronical, and especially those rooted in the nervous System, may be relieved by forcing this virulent Matter to the Surface of the Body externally; and, on the contrary, augmented by repelling it to the internal Parts.

The Truth of this is confirmed by Experience; for we have numberless Observations made by Authors of Veracity, who inform us, that spasmodic Asthmas, arthritic Pains, Gout, and many other Distempers, have been removed by the Itch alone, and recurred upon a Suppression of it. Thus *Sennertus*, in *Paralipom.* tells us, that a continual Fever, Blindness, and Epilepsy, were produced by this means. And *Schizius* remarked a Woman, afflicted with the Itch, who, upon the Application of a Mercurial Girdle, had her Tongue swelled to so enormous a Bulk, that, hanging out of her Mouth, not without Danger of a Gangrene, it could hardly be reduced to its natural Size. *Hagendorpius*, *Cent. 1. Hist. 9. & M. N. B. dec. 1. ann. 2. Obs. 313.* assure us, that Suffocation followed a repelled Itch: And, in *Cent. 2.* we have an Account of a scorbutic Itch, treated with a Mercurial Ointment, which terminated in a Gout; and, at another time, proved the Cause of a Gutta serena. *Amatus Lusitanus*, *Curat. Med. Cent. 2. Curat. 33.* mentions a young Man, who, when afflicted with the Itch all over his Body, anointed himself with an Ointment, in which Arsenic was mixed, and in the Morning was found dead in his Bed, by his Servants. He, also, tells us, that he knew another, who, by anointing himself in the same manner, was seized with Madness: And in another, he says, some Tubercles arose, which were very difficult to cure. Nor must we omit what *Hoechstetterus*, *Dec. 8. Observat.* tells us: "A young Taylor, says he, having the Itch, used a Mercurial Ointment, without purging his Body; by which the Distemper being thrown to the internal Parts of his Body, both his Legs, from the Coxendix, became weak and motionless, like as if they had been paralytic. His Body was rendered soluble; and things calculated for preparing and eliminating the peccant Humours were given; but, finding no Relief from them, he was seized with Convulsions, and died." And the same Author, *Dec. 1. Casu 2.* says, that spurious and malignant Fevers have been produced by a rash and preposterous Cure of pustulous Disorders.

And I myself have observed, in delicate Patients, that a perverse Use of drying Topics, in cutaneous Disorders, has produced a Difficulty of Breathing, a Phthisis, Loss of Appetite, and the utmost Anxieties of the Precordia. I have, also, known an Anasarca, and Tumors of the Scrotum, arise from the same Cause. And besides, this Opinion of mine, concerning the viscid and acrid Quality of the peccant Matter, is still more confirmed by opening a Vein in these Disorders, when the Blood is found to be viscid, and, as it were, condensed into a Coagulum, that it can hardly be separated. The same is very plainly proved by a remarkable Observation on the noxious Effect of a repelled Itch, which *Schulzius* has inserted in *Vol. 1. A. N. C.* A certain Man, having led a sedentary Life for many Years, and being violently and for a long time afflicted with a moist Itch, he was altogether, and at once, freed from it by the Use of external Remedies; upon which he was immediately seized with Deliriums; and afterwards, when the Itch could not be recalled by any means, he became hemiplegic, convulsive, and lethargic. Upon opening his Body, the Peritonæum appeared very thick, adhering to the Omentum, full of unseemly, black, green, and livid Streaks, and diffusing a most fetid Smell. His Intestines were distended with flatulences, and full of green Eruptions; and his Stomach, Liver, Spleen, the Intestinum Colon, and Duodenum, were so united into one Mass, that no Part of them could be separated without a Knife, or Dilaceration. The Spleen was preternaturally thick and hard, and the Gall-bladder thick, and replete with a viscid Humour resembling a saturated Solution of Gamboge.

'Tis not, therefore, to be doubted, but in cutaneous Disorders there is a large Quantity of glutinous and tenacious, impure and corrupt Serum. But, if we accurately examine into the mediate and remote Causes contributing to the Production of this Serum, the first, which occurs, is the Strength of the Solids, impaired and rendered insufficient for a due and brisk Contraction: Which being diminished, the Circulation of the Blood,

and the Secretion and Excretion of the superfluous Humours depending on it, decrease; the fluid Parts are not sufficiently attenuated, and intermixed with the solid, but, in Process of Time, greatly degenerated from their former salutary Temperature. Besides, under such a diminished Motion of the Blood, the Structure of the Organs and Viscera, destined as well for Sanguification, as the Secretion of the laudable Juices, such as the Liver and Spleen, is depraved in a wonderful manner: Hence the Vessels and Passages being rendered more narrow, and the acrid, saline, and viscid Particles not properly separated, enter this Mixture of the Blood, and infect, contaminate, and corrupt it with an impure Taint, or Fomes, which supplies large Matter for these Diseases. Hence it is, that we find hypochondriac, scorbutic, and cachectic Persons, who are afflicted with such a State of the Blood and Viscera, are subject to several cutaneous Disorders. Since, therefore, the Blood and Viscera cannot be easily corrected, and restored to their former Condition, the Reason is evident, why it is not only difficult entirely to remove Disorders of this Kind, if they have taken deep Root, and are become inveterate, but, also, why, after being once cured, they easily recur with their former Virulence.

But to this so dangerous and noxious a Depravation of the solid Parts, and of the Viscera themselves, many Causes concur in some Patients; the principal of which are, in Men, a Suppression of the hæmorrhoidal Discharge; in Women, a Suppression of the Menstrues; in young Persons, a Suppression of Hæmorrhages from the Nose; and, in plethoric Patients, the Omission of accustomed Venesection. For, since in such a State of Things, especially if a luxurious Manner of living is used, the Redundance of the Blood and Humours causes a slower Circulation, and an impeded Depuration of the vital Juices, the Blood cannot but be insensibly, and by degrees, impregnated with various Impurities. This happens more frequently, when the salutary Business of Transpiration is retarded by an Air, cold, moist, vapid, and replete with noxious Vapours: For this Reason, also, Persons dwelling in low and moist Houses, inhabiting Marshes, and Places obnoxious to Inundations of Water, or confined in Prisons, or People living in cold and moist northerly Countries, are, above all others, afflicted so frequently with the Itch, and other cutaneous Distempers. Nor is any thing, but the moist and unequal Temperament of the Air, in the Spring and Autumn, to be blamed, for the Appearance or Return of these Disorders, at those Seasons especially, and for their exciting a greater Itching and Heat at some times, than at others; and in *M. N. C. Dec. 3. Ann. I. Obs. 205.* we are informed, that such a thing happened at the Increase of the Moon. For the Atmosphere, or circumambient Air, has a surprising Influence on the Tone of the Skin, and the Success of Transpiration depending either on its Constriction or Relaxation; and as a good, pure, and elastic Air preserves a due Crasis of laudable Blood, so an impure and vapid Air has an Effect directly opposite; as *Lucretius, Lib. 6. Vers. 1110.* has observed, in the following Lines.

*Est Elephas morbus, qui propter flumina Nili
Gignitur Ægypto in media, neque præterea usquam.*

Nothing likewise is more common, than for sudden Changes of Air, and Journeys from a pure and light, to a thick and dense Atmosphere, to bring on various cutaneous Disorders; though it is not to be denied, that a Change of Food, Water, and Liquors, which, by changing the Disposition of the Blood, generates new Particles, and those perhaps, not corresponding to the Diameters of the Emunctories, contributes, also, to the Production of such Disorders. Hence I know several, who, coming from *France*, and Countries situated on the other Side of the *Rhine*, and other Places, which produce Wines, to *Germany*, where they met with a more rigid and inclement Atmosphere, have, after some Months, been seized with the Itch. *Lucretius* therefore, in the Place already quoted, very justly derives the Origin of many Diseases from a Change of Air, in these Words:

*—Inde aliis aliis locus est inimicus,
Partibus ac membris variis concinnat id aer.
Proinde, ubi se calum, quod nobis forte alienum
Commovet, atque aer inimicus serpere capit,
Ut nebula ac nubes paulatim repit, & omne
Qua graditur, conturbat, & immutare coactat.*

Besides these we ought to reckon, among the more remote Causes, a bad Digestion of the Aliments, which happens, either when proper Food is devoured in an excessive Quantity, or when incongruous Aliments are used, such as Flethes smok'd, or over-salted Bacon and Pork, too pinguious Substances, sweet Things, crude Summer Fruits, Peas, and Beans, generally are. To which likewise belong several Sorts of Drinks, such as acid Wine, acid Malt-liquors, and impure Waters. For, by means of these, many viscid, saline, and acrid Crudities must necessarily be accumulated in the Prime Viæ; which, being conveyed into the

Blood, are not intimately enough mixed and digested, nor sufficiently depurated through the Strainers, particularly through the Emunctories of the Skin; whence the Blood, in consequence of a difficult Circulation, is rendered cacoehymic. And this happens the rather, if, besides the Passions of the Mind, such as Sorrow and Uneasiness of Temper, which have great Efficacy in retarding and inspissating the Blood, an idle and sedentary Life is likewise added. For this Reason, also, Weavers and Taylors more frequently labour under a loathsome Itch of the Hands, and even a crusty one of the Legs and Shins, with a pale Face, and a somewhat tumid State of the Body, in consequence of their coarse Method of Living, and Omission of Exercise.

The Prognostic which we now come briefly to explain, varies according to the Variety of the Disorders: And, first, it is to be observed, that an Itch, communicated by Contagion, is more easily cured, since, adhering only superficially, it has not taken deep Root in the Skin, than that, which draws its Origin from a native Dyscrasy of the Blood and Humours. The moist Itch, likewise, and particularly when it is not very much spread, is generally more mild and slight than one of the dry, pruriginous Kind: For the latter fatigues the Patients Night and Day with an almost intolerable Itching, and by interrupting Sleep impairs the Strength. Patience, therefore, must be enjoined, because so great an Impurity of serous, acrid, and lixivial Juice cannot be suddenly tempered, diluted, corrected, and gently discharged. Besides, all cutaneous Disorders, when recent, are more easily cured, than those which are become inveterate, and confirmed by Length of Time, or a Want of due Care: And these, again, are more easily cured in young Persons, by reason of their free Transpiration, than in those more advanced in Years; since the latter, according to *Celsus*, are very subject to chronical Diseases. The Disorders of the Skin, which proceed from an internal Fault of the Viscera, are not only removed with more Difficulty, and indeed not at all, unless the Corruption of the Viscera is first taken away, but they are, also, easily renewed, and return afresh; and sometimes degenerate into an Hæctic and Dropsy. From hence we may easily judge, in what manner we ought to form a Prognostic, if such Disorders invade after intermitting Fevers, the Small-pox, the Measles, and the *Lues Venerea*. Besides, all subcutaneous Disorders are more obstinate, if there are observed, in the muscous and pinguinous Parts of the Back and Arm, small Nodes in the Shape of Glands, externally invisible, but internally palpable, like Vetches, Beans, and Peas; a manifest Indication, that not the indurated Glands of the Skin, but the viscid Humour, stagnating in the Membranes and pinguinous Cells, is the Cause. But especially with respect to the Elephantiasis, which is commonly the highest Degree of cutaneous Diseases, *Aretæus, Lib. 8. Cap. 13.* forms the following Prognostic: "Medicines, a proper Regimen, Instruments, and Fire, should concur together at the same time, for the Cure of cutaneous Disorders. And, if you apply these to a recent and growing Disorder, there are some Hopes of Recovery. But if it is arrived at the last Stage, fixed in the Viscera, and, besides, invades the Face, then all Hope of the Patients Health is entirely destroy'd." When the Small-pox or Measles follow an Herpes Miliaris, infecting the Head with Tooth-achs, Head-ach, Catarrhs, and Deffluxions, the Case is not without Danger: And sometimes, after the Death of such Patients, I have known a morbid, black, and sphacelated Space found in the Crown of the Head. The Leprosy was at all times esteemed very contagious; and therefore have Physicians thought it proper, that leprous Persons should be separated from the Society of Men, and banished out of Cities into solitary Places; tho' I have often, and but lately, seen a Man of Learning, who, labouring under the true Symptoms of a Leprosy, has been conversant with his Domestics, for a Year and more, without any Prejudice to them. But it is otherwise in *Greece*, where this Kind of Disease is much more contagious.

As to the proper and secure Method of curing these Disorders, we must observe, that the Antients were very well skilled both in discovering and curing most Diseases of the Skin; and the more so, because the two principal of them, the Leprosy and Elephantiasis, which constitute, as it were, the highest Degree of cutaneous Diseases, were very frequent in their Countries, and afforded them a convenient Opportunity not only of knowing thoroughly the particular Characters of these Distempers, but, also, of discovering better the true Efficacy of the Remedies adapted to their Cure; so that it is now easy for us to adapt our Measures to the less Degrees, and slighter Species of the Skin. But above all the rest, as the most serviceable to our present Purpose, I prefer that most accurate Observer *Aretæus*, who, in his Description of the Elephantiasis, *Lib. 4. Cap. 13.* so naturally, and, as it were, to the Life, paints the Disposition and Progress of this horrid Misfortune, that it evidently appears, that the whole Mass of Blood and Humours is entirely viscid, tenacious, and almost coagulated, and the spirituous Principle of the vital Juices absolutely depressed; so that by this means the salutary Secretions and Excretions being suppressed, the whole Body abounds with tenacious, acrid, and corrupt Humours. And, for the Removal of these Causes, he proposes this excellent Method of Cure.

Alter

After Bleeding, he prescribes Milk mixt with a fifth Part of Water to be given for Drink, to render the Body soluble; and Veratrum, by which he means white Hellebore, to be taken every other Day in Spring and Autumn. He also thinks the Shavings of Elephants Teeth an excellent Medicine, given with Wine, and the Flesh of Vipers, either reduced to Troches, or boiled with Squills and Broths; and, for this Purpose, he greatly extols all Medicines prepared from Vipers. Among Externals, he advises those things, which deterge and resolve Tumors; and orders the Sordes to be washed off with Soap in a Bath. He also prescribes a Bath, in which have been boiled the sharp-pointed Dock and Sulphur, as a very great Detergent. For removing the Tumors, he orders the Fat of a Lion and Bear, mixt in equal Portions with alkaline Salt; but for mitigating the sharp Fluxions, and appeasing the Exulcerations, he proposes a Decoction of Fenugreek, Barley, and Oil of Roses, both for the sake of deterging and moistening; and, if the Flesh is livid, he first orders a Scarification to be made, that the Part may be render'd succulent: For Food, which ought to be plain, of a laudable Juice, and easy of Concoction, he strongly recommends a Decoction of Cabbage, with a Solution of Cumin: For Supper, the *Staphylinus*, Carrot; among Sea-substances, Oysters and Rock-fishes; among Birds, Partridges and Pigeons; among Fruits, Summer-fruits and sweet Wines. Nor does he think less Regard should be had to Sleep, Watchings, and Places chosen for Habitations, as well as to the Exercises of the Body, which he orders to be carried on by Running, Talking, and various Contortions of the Body; and to be continued properly without Lassitude. *Aretaus*, also, greatly extols the Efficacy of white Hellebore in this Disease; for he calls it the most efficacious of all Purgatives, free from every peccant Quality, which, in a small Quantity, and moderate Dose, was the only Remedy for all inveterate Diseases, that had taken deep Root, and which render'd a difficult Respiration easy, and a pale Complexion gay and florid.

Celsus, Lib. 3. Cap. 25. proposes a Cure, not unlike this, for the Elephantiasis. "Immediately at the Beginning of the Disorder, Blood should be taken away, for two Days, or the Body be render'd soluble with black Hellebore: Abstinence then, as far as it can be supported, must be used; then the Strength a little repaired, and the Body render'd soluble: After this, when the Body is eased, Exercise is necessary, and, especially, Running: Sweat must, also, be provoked, first, by Exercise of the Body, and, then, by a dry Heat. Friction should be used, and Care taken, in the mean time, that the Strength be preserved; and Bathing seldom used. The Aliment ought neither to be pinguous, glutinous, nor stultent. Wine, besides, is properly given on the first Days. Plantane triturated, and used by way of Ointment, seems to preserve the Body best."

From a due Consideration of all these Things, we may conclude, that the whole Method of Cure, and all the Powers of the Remedies, ought to aim at, and, as it were, conspire together to discharge out of the Body the Mass of corrupt, glutinous, and acrid Humours, by sufficient Bleeding and Abstinence, by Purges, both gentle, as Milk is; and drastic, as Hellebore: Then, that by congruous Aliments, and a proper Regimen of Diet, Juices of a laudable Quality, and agreeable to Nature, may be generated; and, lastly, that by external, detergent, consolidating, and drying Remedies, the Parts may be freed from Pains, Tumors, Itching, and Ulcers. And indeed these Intentions of Cure, as well as the Medicines proposed for answering them, are very proper and expedient. We shall therefore, from the Antients, take our Methods of Cure; not only for the Elephantiasis, but, also, for more gentle Diseases of the Skin, such as the Itch, Herpes, and Gutta Rosacea. But, since all these exanthematous, ulcerous, and pruriginous Disorders, differ widely from each other, in respect to Places, Patients, and Temperaments, and, likewise, in regard to the Habit of Body, and Manner of Life, and since, in this learned Age, the healing Art is supplied with efficacious Remedies, we shall act most judiciously, if we confine the Method of the Antients within certain Bounds, and pursue it, in our Climate, with some proper Cautions.

And, first, as to diminishing the depraved Humours by various Bleedings, it must be observed, that the Quantity of Blood, to be evacuated by opening a Vein, should be estimated from the different Redundancy of it, according to Age, Strength, and Custom. Nor are old Persons, who have been accustom'd to artificial or natural Evacuations of the Blood, to be entirely dissuaded from such Diminutions: For I have known Instances of old Persons, both Men and Women, after the Age of Four-score, whose Veins have been open'd, in several Diseases of the Skin, with remarkable Advantage; or in whom natural Excretions of the Blood have been revived by an hæmorrhoidal Flux, with Relief: But if the Patients are fat, and of a spongy Habit of Body, where there is generally found a large Quantity of Veins, and a Smallness of them, I have observed it to be a more speedy and secure Method of Relief, to diminish the Mass of Blood and Humours by Scarifications, made at a convenient Season, especially when the Strength, impaired by the Length of the Disorder, and want of Appetite, has required only a moderate Depletion: Nor is this

kind of Remedy always sufficient, when hypochondriac Persons, and those afflicted with hæmorrhoidal Disorders, fall into such Distempers. But then it is more expedient to attempt and contrive a due Evacuation of Blood, by Leeches applied to the Anus.

It sometimes happens, that some Patients, in which a Plethora rather of a serous than of a sanguine Kind offends, bear a copious Discharge of Blood very ill. In this Case, therefore, other Measures should be taken; and if a voracious Appetite, as it frequently happens, gives Rise to the Distemper, Abstinence, in Conjunction with proper Cautions, should be recommended for the Cure: But this salutary Method principally consists in this, that the Patients abstain from all pinguous, boiled, and glutinous Fleshes, such as Pork and Beef are; from Milk-meats, and all Things which inflate, and afford much Nourishment; and rather use Fleshes well roasted, and light, such as those of Birds, Partridges, Chickens, and Pigeons; and sometimes Biscuit; interposing, to preserve a Solubility of the Body, Raisins, boiled Damascene-plumbs, laxative Apples, and other lubricating Substances of this Kind. But, since a sudden Change of Food is often prejudicial, this Remedy of Abstinence should be enter'd upon in such a manner, that the Patients, not altogether, and at once, but rather insensibly, and, as it were, by degrees, descending from a plentiful to a more scanty Diet, may accustom themselves to it imperceptibly, without Damage, and continue it, according to their Circumstances, for several Days or Weeks. This Caution is equally necessary after the Cure, that we may not suddenly ascend again to a plentiful Diet.

Besides these, under the whole Progress of this Cure, drinking Malt-liquors, at other times customary, ought to be prohibited, substituting in its Room large Quantities of Decoctions, prepared of such Ingredients as contribute to purify and sweeten the Juices, dry up the superfluous Humours, and corroborate the solid Parts; such as the mild and frequently used Roots of China, Sarsaparilla, sharp-pointed Dock, Vipers-grass, Succory, Liquorice, and Polypodium; the Barks of Sassafras, Cascarilla, Cinnamon, Mistletoe; the Shavings of Sassafras, and red Sanders, and others of the same Kind; which, according to the various Intentions proposed, may be variously mixed with each other, and so boiled in pure Water, two Pints, or a Measure, of which may be allowed for each Ounce of the Ingredients.

But it is likewise proper, for the Progress and Completion of this Cure, to free the Primæ Viæ from the Colluvies of vitiated Humours, by gentle Purgatives; which should be repeated often, as well during the Cure, as after it is finished. This Design may best be answered by Remedies gently evacuating; among which we justly reckon Infusions of Manna, Rhubarb, Sena-leaves, Cream of Tartar, the bitter purging Salts, Cassia, the Herbs Fumitory and Dodder of Thyme; together with the Roots of Succory and Polypodium, prepared with Water and Wine.

But if the growing and refractory State of the Disease raises a Suspicion of Malignity, or, in some, seems not to yield to Abstinence, it is expedient to use more powerful and efficacious Remedies, as well from the Class of Purgatives, as of Diaphoretics, and Cleaners of the Blood, that the tenacious and viscid Humours, by which the Passages of the Viscera are infarcted, and a continual Pabulum supplied to the Distemper, may the better and sooner be discharged, both by Stool, and all the Emunctories of the Body. Now the most ancient Fathers of Physic, *Hippocrates*, *Aretaus*, *Galen*, and others, have, for this Purpose, greatly recommended the most drastic Purgatives, especially Hellebore, both white and black, Coloquintida, and Scammony. But since, in our Days, we are acquainted with more efficacious and safer Remedies, we justly reject these, and use the Root or Resin of Jalap, the Extract of black Hellebore, Elaterium mixed with Mercurius dulcis, or Æthiops Mineral, and Gum Ammoniac; and, among compound Remedies, the Extractum Panchymagogum Crollii, in the Form of Pills: Or, if a Powder is more agreeable, it may be prepared of a few Grains of the Resin of Jalap, mixed with equal Quantities of sweet Almonds, and Mercurius dulcis; to which a Drop or two of the Oil of Mace, or of the Oil of Sassafras, may be commodiously added.

Among those Things, which, by stimulating the solid Parts to an excretory Motion, somewhat more powerfully colligate the tenacious Humours, the Wood Guaiacum, with its Bark, is to be preferred above all others, which as, by a proper Use, it is very often, alone, sufficient entirely to eradicate the Lues Venerea, so, likewise, is it no despicable Remedy, in destroying subcutaneous Disorders, which are of a Nature still more mild. Besides this, we may, in a particular manner, refer to this Class, Medicines obtain'd from the mineral Kingdom; among which the most considerable are, the tartarized and acid Tincture of Antimony, medicinal Regulus of Antimony, Sulphur of Antimony, corrected in *Glauber's* Method, Preparations of Cinabar, and, if a Venereal Taint is suspected, a Decoction of crude Antimony: Which Medicines, given in a convenient Dose, and in the Morning, with purifying Decoctions, to be drank in Bed, or added to other Diaphoretics, afford very great Relief, since, by moving the Lymph, they open the Obstructions

Of the glandular Tubes, and, consequently, very efficaciously depurate the Blood and Lymph.

Though these Remedies already proposed to depurate the Mass of Blood and Humours are of great Efficacy; yet there are Cases, such as the Elephantiasis, and Venereal Itch, where the Cause of the venomous Taint being more deeply fixed, little Benefit and Advantage is procured from them, but stronger Remedies are still required; than which, if the Patient's Strength permits, none are more powerful in subduing and destroying the most obstinate Diseases of the cutaneous Kind, than Mercury, and its Preparations, the subtil Particles of which, by entering and penetrating into the inmost Recesses of the Vessels, correct, extricate, and dissolve the viscous Humours impacted in them, and, by increasing the systolic Force of the Fibres in the whole Body, expels them through the Emunctories of every kind, by Stool, Sweat, and especially through the salival Glands and Ducts, by means of a copious Discharge of Saliva. And by this stated, and, as it were, universal Evacuation, it generally happens, that all the impure Sordes are quickly, though with some Trouble, eliminated, and the whole Body, by that means, purged, and, as it were, restored to a new State and Condition.

But there are various Methods, proposed by Physicians, for giving Mercury, which we will briefly examine. Thus, there are some who make an Unguent of live Mercury, thoroughly extinguished with Pomatum, adding Flowers of Sulphur and Camphire, with which the Joints, Ancles, Knees, Elbows, and Soles of the Feet, are to be well rubbed, in order to promote a Salivation. But others chuse a better and safer Method of using Mercury, internally; whilst, by a previous Preparation of the Body, by means of Alteratives, Correctors, and Evacuants, Mercurius dulcis, duly prepared, and mixed with double the Quantity of Crabs-eyes, and diaphoretic Antimony, is duly exhibited; rising gradually from three or four Grains to one Scruple. By this means a sufficiently large Discharge of Saliva is excited, and must be carried on, under a due Regimen, and with proper Cautions, sometimes interposing Decoctions, for depurating the Blood, for one or two Weeks. This Intention is, also, answered by alterative and diaphoretic Preparations of Mercury, such as the Mercurius Solaris, and Jovialis, of which a few Grains, mixed with Conserve of Roses, may, for some Weeks, with great Advantage, be exhibited every Morning, drinking, in Bed, after it, under a diaphoretic Regimen, about a Pint of some proper Decoction. But it must be observed, that each of these Methods of Cure require an Air very temperate, a spare, thin Diet, and a careful Abstinence from the Use of pinguious or boiled Flesh, and Acids.

But it often happens, that we must proceed in a Method much more mild and gentle, when neither Purgatives, nor copious Bleedings, nor Decoctions with a drying Diet, nor Mercurials themselves, can safely be admitted. For, if the Patient is either an Infant, or too old, the Vigour of the Body and Strength impaired, the nervous System highly delicate; if the Body is found rather dry and lean, than pinguious and lax; or if the Acrimony and Mordacity, rather than the Thickness and viscid Tenacity of the Humours offends; then must we enter upon a Method quite different: And, in this State of the Disorder, not only the Antients, but, likewise, the most judicious of the Moderns, have greatly extolled Preparations of Milk, and especially Asses Milk, the Whey of Cows and Goats Milk, and Milk mixed with Water. Thus, besides Hippocrates, Celsus, and Aretaeus, who, in their Writings, attribute an extraordinary Virtue to Milk, Dioscorides, particularly, *Lib. 2. Cap. 7.* thinks a Cure with Milk, properly managed, highly beneficial in an Itching on the Surface of the Body, in Spots, and a Deposition of peccant Humours on the Skin. But in the Book already cited he recommends Whey for cutaneous Affections, in these Words: "Whey is properly given to those whom we intend to purge gently against the Leprosy, Elephantiasis, and Effervescences breaking out through the whole Habit of the Body." And indeed the Power of this dietetic Remedy is very great, as it not only dilutes, and renders fluid, the thick, viscid, and almost coagulated Humours, opens the obstructed Passages of the Viscera, and, by temperating the acrid Saltness of the Humours, moistens the dry Parts, and relaxes those which are constricted, but, also, gently eliminates, expels, and evacuates the noxious Humours, both by Stool and Urine.

Since it is of no small Consequence to determine both the Quantity and proper Time of drinking Milk and Whey, we shall be in the least Danger of erring, if we take the Antients for our Guides in these respects. Among these, then, Hippocrates, in *Lib. Epid. 7.* advises to drink Asses Milk, or Whey, especially that of Goats Milk, for several Days. And, *Lib. 9. de Intern. Affect.* he says, he prescribed Milk, with an Addition of a third Part of Hydromel, for forty-five Days. That Whey may be taken for some Months, and longer, both Sylvaticus and Riverius affirm, who used it in very violent Disorders of the Skin, for twelve, twenty, and forty Days, with good Success; for which Reason they bestow great Encomiums upon it. Of the same Opinion is Hugenius, *Epist. & Consultat. Medic. Tom. 2. Lib. 1.* who thus recommends drinking of Whey in a

large Quantity, for a considerable and inveterate Itching of the whole Body: "They, says he, who drink a small Quantity of it, are disappointed in the Design of Alteration or Expurgation. Let the Quantity, therefore, be eight Pints, or more, a Day." And, *Lib. citat. Tom. 1. Lib. 12. Epid. 1.* he asserts, that he used to give this Whey, in the same manner the medicinal Waters are usually exhibited. Thus, for Instance, the first Day he exhibits six Pints, with three Ounces of the solutive Syrup of Roses. The next Day he gives only simply Whey; continuing, for twenty Days successively, to raise the Quantity gradually to nine or ten Pints.

Whenever these exanthematous Disorders are maintained and supported by a scorbutic Lues, or hypochondriac Affection, which frequently happens, a much greater Advantage will be procured, when the above-mentioned Course of Milk is so managed, as to be calculated and adapted to alleviate the other Disorders with which they are complicated. For which Purpose we can hardly find a better Method of Relief, than the due Use of medicinal Waters, especially those of a temperate Kind, impregnated with a saline and spirituous Principle, such as the Selteran Springs, or those of Tönnstein, Wildungen, or Egra, mixed with an half or a third Part of Milk, used under a due Regimen; as also after the previous Use of Evacuants, and other Medicines, which are also to be interposed.

But if these Waters cannot be had, the End will be best answered by a Decoction of such Herbs as depurate the Blood, and are particularly destined to these Disorders, with Milk or Whey, both sweet, and somewhat sour. The most considerable of these Herbs are Fumitory, Dodder of Thyme, common Dodder, Baum, Spleenwort, Marsh-trefoil, Brooklime, Dandelion, Borrage, Endive, Succory with its Root, together with many others; which partly, being furnished with a penetrating volatile Salt, incide and dissolve the viscid Humours, depurate the impure Juices, and restore a proper Balsam, *i. e.* Quality, to the Blood; and partly, by assisting the languid Digestion of the Stomach with their bitter balsamic Principle, conduce greatly to a Regeneration of laudable Blood. Nor are those, therefore, frustrated, who, after having prepared their Body, take of the Juice of the before-mentioned Herbs, fresh and confused, an Ounce, or more, with Whey, for several Weeks.

Lastly, Among the best Remedies for violent Disorders of the Skin, we may, also, reckon the Use of Vipers, which is very highly esteemed both among the Antients and Moderns, and, therefore, not to be omitted. In Hippocrates, indeed, there is no one Passage, that I know of, which enjoins the Use of Vipers. But Aretaeus, Galen, Aetius, and, among the Arabians, Rhazes and Avicenna, not only highly extol the Virtues of these Animals in the Cure of the Leprosy, Elephantiasis, and all Disorders of the Skin arising from a malignant Impurity, but, also, promise a wonderful Renovation of the whole Body by their means. Andromachus, first Physician to Nero, made Troches of Vipers the principal Ingredient of his Theriaca, or grand Alexiterial Medicine. And the best Physicians of Italy, France, and Germany, Mercurialis, Quercetanus, Solenander, Ballonius, and others following these, have, likewise, bestowed great Commendations on Vipers; till Julius Palmarius, a Physician at Paris, *Lib. de Morb. Contagis, Cap. 9.* sharply reprehended the Promises and weak Credulity of the Antients in this respect, enforcing his Opinion by the Testimony of Joannes Fernelius, who asserted that Medicines prepared from Vipers, and exhibited to Persons afflicted with an Elephantiasis, had never produced any salutary Effect, since neither the Constitution of the Viscera was made better, nor the verrucous Blotches, nor the increasing Deformity of the Skin amended; but all the Symptoms rather exasperated. Nevertheless, there have been, and still are, many amongst the Moderns, who, giving Credit to the Antients, and long Tradition, persuade themselves, that there is a peculiar, and, as it were, specific Virtue in Vipers, and Decoctions or Broths prepared from them, against cutaneous Disorders; and, therefore, prescribe Vipers, procured from Italy, often at a great Expence, in different Forms, such as Powders, Troches, or Broths, or even in the Form of a volatile Salt, chymically extracted, with Hopes of the desired Effect.

But to declare my Opinion freely and ingenuously in this Affair; I am fully persuaded, from many Observations, confirm'd by satisfactory Reasons, that no Benefit, sufficient to encourage the Use of viperine Medicines, can be expected from them, in correcting the Impurities of the Blood. Nor does any accurate complete Observation occur in the Writings of the Antients or Moderns, from which any one can certainly know and affirm, that the Qualities of Vipers are specific, and directly opposite to these Diseases; especially as other Remedies were, for the most part, mixed with them, or used at the same time, which render the Effect very doubtful. Thus have I known several Instances, where in an Atrophy, Phthisis, leprous Psoa, Itch, Tinea Capitis, and other Disorders of this kind, various Medicines made up of Vipers have either done no Good, or, if they have, it ought rather to be referred to the other Ingredients mixed, and exhibited in Conjunction with them. If any salutary Effect, therefore, arises from Vipers, it is certainly no other than

than may be expected from all other dried Parts of Animals, endued with a certain gelatinous, gently sulphureous, and volatile Juice; and consequently these extravagant Encomiums on Vipers are of little Value, as they are founded on the Prejudice of Authority only. The remarkable Observations of *Zwoelffer* on the *Pharmacopœa Augustana*, p. 211. relating to Viperine Medicines, are worthy the Perusal of the Curious.

Since the Causes of these Disorders are different, the Cure should likewise differ. That we may not, therefore, be led into an Error, we shall accurately inquire into and distinguish between the Causes, which bring the particular cutaneous Disorders on. Thus, if through excessive Eating, and a sedentary Life, the Redundance of the Humours lays a Foundation for the Disease, Abstinence and Exercise are above all things necessary: If crude, viscid Humours, in Conjunction with an highly phlegmatic Temperament, are the Cause, such Medicines as evacuate by Stool, infused in Wine, will be serviceable, adding, at the same time, those things which gently promote Transpiration: If the Body is plethoric, and these Asperities and Exulcerations of the Skin arise from an Omission of Bleedings, or a Suppression of a critical Discharge of Blood, the Cure ought to begin with Bleeding, either by opening a Vein, or by means of Cupping-glasses, with the Addition of such Remedies as are adapted to recover these salutary Excretions: If the Patient is young, lean, and of a choleric Habit, the greatest Benefit will, all other Circumstances being alike, be found from diluting Medicines, which correct the Acrimony, and cool the wasting Heat of the Humours, such as Whey, Mineral Waters with Milk, nitrous Preparations, and Doses of Manna, to promote Evacuation by Stool: If the Weakness of the Viscera and Stomach is observed to favour the Generation of impure Juices, Strengtheners of the Stomach, which assist Digestion, will prove very beneficial: But if a Suppression of insensible Transpiration through the Pores, and an Obstruction of the cutaneous Ducts is the principal Cause, the Physician ought to open the obstructed Orifices of the Pores, by gently diaphoretic Infusions, and Frictions.

Since chronic and dangerous Distempers are terminated by the Itch, and various Eruptions of the Skin, as by their Crisis, great Care must be taken not to evacuate by Stool, Urine, or even Bleeding, lest the virulent Matter should be retracted from the Surface to the internal Parts of the Body. *Joann. Langius, Epist. 16. Tom. 1.* has a remarkable Passage to this Purpose: "I have more than an hundred times, says he, seen an Itch and cutaneous Tumors of the Feet, which arose after the Crisis of different Fevers, but especially of a Quartan, spontaneously disappear, without any Assistance of Medicines. But if Phlebotomy had been then used, or any Medicine exhibited, there would have been great Danger of retracting the Matter of the Disorder entirely into the Viscera, through those Vessels, by which it had been expelled."

This Caution is likewise necessary, when Nature in a salutary manner endeavours to propel Eruptions, and is not of herself sufficient to execute her Design: For if, at that time, a Physician should administer such Remedies as retain and repel the Impurities to be removed to the Skin, such as plentiful Bleeding, any Purgatives, Astringents, and, in weak Patients, Refrigerants, and especially nitrous Medicines, given in large and frequently repeated Doses, he will greatly prejudice the Patient, and, by his bold Attempt, convert the benign into a malignant Disease. At this time the Strength of Nature should rather be assisted in expelling the Impurities by gentle Diaphoretics, which, by a certain active sulphureous Principle, augmenting the systolic Motion of the Fibres and nervous Parts, render the Circulation of the Blood more quick, and determine its Course to the Surface of the Body, so that by this means the excrementitious Sordes are eliminated by cuticular Exhalation. And Nature herself, whom we ought to take for our Guide in Practice, chooses this Way; as we may conclude, not only from spontaneous Sweats, and such as often flow in large Quantities, but, also, from many Instances, in which the Itch, and other Disorders of the Skin, especially if they took their Rise from Contagion, or the Relicts of another preceding Disease, such as intermitting and continual Fevers, Gout, convulsive Colic, and Asthmas, have been removed by Sweats arising spontaneously, or excited by Air.

The best and most proper Medicines for promoting a Diaphoresis, and rendering the Blood and Humours more fluid, are Infusions of the Herbs *Scordium*, *Paul's Betony*, *Scabious*, *Fumitory*, and *Cardus Benedictus*; the Flowers of *Elder*, and the Roots of *Burnet*, and the sharp-pointed *Dock*. These Decoctions, if liberally drank contribute very powerfully to the Expulsion of the peccant Matter. To this Class, says *Hoffman*, also, belong, and may be mixed, or interposed, with the above-mentioned Infusions, the *Mixtura Simplex*, my anodyne mineral Liquor, mix'd with a third Part of the *Spiritus Bezoardicus Suffil*, or the succinated Spirit of *Hartshorn*. Or, also, the diaphoretic Powders, prepar'd of diaphoretic Antimony, Ceruss of Antimony, and what is analogous to it, the *Materia Krugneri Perlata*, with an Addition of a small Quantity of crude Antimony, medicinal Regulus of Antimony, distilled Sulphur, and its Flowers; *Cinnabar*,

Æthiops Mineral, and other Substances of a like Nature already mentioned in the Method of Cure. And these Powders may, in the Evening, as spirituous Liquors are in the Morning, be exhibited in a Vehicle of the Waters obtained from the Flowers of *Elder*, *Cardus Benedictus*, *Fumitory*, or *Scabious*.

Though diaphoretic Medicines should be associated with others, and duly interposed, yet by themselves, they are not sufficient for producing a Cure; and a Treatment absolutely diaphoretic, especially in dry Patients, is so far from conducing to Health, that it rather augments the Disease, and, from a simple Itch, produces a pustulous Disorder with an Increase of Itching. Since this is the Case, it seems absolutely necessary to order not only proper Drinks in choleric Persons, for Instance, weak Decoctions, and Preparations of Milk, and, in Patients of lax and phlegmatic Habits, more strong and saturated Decoctions, to be drank in a sufficient Quantity; but likewise to prescribe Remedies, which evacuate the Sordes of the *Primæ Viæ*; and, at the same time, diminish the Viscidity of the Serum and Lymph, such as Pills render'd efficacious by a due Quantity of *Mercurius dulcis*, or, in weak Patients, gentle laxative Infusions, which are to be repeated every six or eight Days. But for Infants and Children afflicted with the Itch, I must particularly recommend the following Purge.

Take of the Pulvis *Cornachini*, one Scruple; of *Mercurius dulcis*, eight Grains; of the Syrup of *Succory*, with *Rhubarb*, two Drams; and of *Fumitory-water*, half an Ounce: Make into a Draught; which however is to be proportioned to the Age of the Patient.

An Itching, especially if Decoctions of the Woods and Sudorifics are used, is often increased to a Fainting, because the ichorous Exhalations, and highly subtle acrid Salts, are, by means of these, propel'd in greater Quantity to the Surface of the Body. When this happens, we must abstain from every thing which throws the Humours into Commotions, and rather exhibit Milk, mixed with the Waters of antiscorbutic Herbs, such as *Watercresses* and *Fumitory*, Whey, either alone, or impregnated with the Virtues of alterative Herbs, nitrous Preparations, Emulsions, and Baths of sweet Water.

The Itch, and other Defecations of the Skin, if they recede before their Time, or are treated with external sulphureous, mercurial, refrigerating Remedies, are immediately attended with a Complication of the worst Symptoms. In which Case, besides what we have already recommended to expel them, *Mercurius dulcis* is very efficacious, exhibited rather as an Alterative, than a Laxative; as also eight or ten Grains of the Flowers of Sulphur, given with some Absorbent; only we must omit the Sulphur, while the Mercury is taking; but we must refrain from both, if the Disorder is accompanied with any Degree of a Fever, which frequently happens.

Tho' Mercury, as it were, specifically destroys the malignant Nature of cutaneous Disorders; and tho' Relief is often hoped for in vain from other Remedies, it cannot be obtained from Mercurials internally exhibited; yet a Salivation is very cautiously to be undertaken and entered upon in these exanthematous Disorders, especially if the Patients are cachectic and scorbutic. For, unless the Humours are previously corrected and prepared, the Discharge of the Saliva is not only slowly made, and attended with an Inflammation of the Fauces, a falling out and blackening of the Teeth; but Vomitings, Gripes, Cardialgias, Diarrhoeas, Dyspnoeas, and many other Disorders, are also produced. But since a Swelling of the Tonsils and Fauces, a Relaxation of the Gums, and Difficulty of Swallowing, are almost inseparable from this Method of Cure, the Fauces must be treated with Gargarisms, which are lenient, and proper to preserve the Tone of the Parts; the Body is to be preserved in a perpetual Diaphoresis; all hot and acrid Diuretics are to be avoided; and lastly, with respect to the Regimen, the Access of the cold Air, cold Drinks, all acid, saline, and crude Aliments, are, as much as possible, to be avoided. Besides, a very exact Judgment is required, that the Cure may not be protracted so long as to destroy the Strength of the Person to be salivated; nor the Effect, either thro' the Fault of the Physician, or the Patient, prove insufficient, and the Fomes remain, which may supply a new Pabulum for the Disorder. That we may, therefore, proceed securely in both Cases, we ought to consider the Bulk and Constitution of the Patient, the Duration of the Disease, the Quantity of morbid Matter, and the Violence of the Symptoms.

To Infants, indeed, fixed, absorbent, laxative, and depurating Medicines are more safely exhibited, because in them the nervous System is too weak to bear Mercurials without being injur'd; yet if these gentle Remedies do no Service, and the Itch is of the malignant Kind, I have known Mercurials given without Prejudice, provided the Dose is duly proportioned to the Age; and a proper Regimen strictly observed.

In every Species of the Herpes, which seizes the Præcordia like a Girdle, and often happens in hypochondriac and arthritic Patients, Diaphoretics, especially of a fixed Nature, and Waters of the same Virtues, are an excellent Preservative; not omitting, however,

however, other Remedies. These are, also, to be used in obstinate Ulcers, and internal Abscesses; since, by their means, the viscid and acrid Humours are commodiously altered, corrected, and gently eliminated.

Nor are Topics to be omitted, the proper Use of which is very advantageous in perfectly curing Defecations and Ulcerations of the Skin. But, since different cutaneous Disorders require different Remedies, I shall briefly and distinctly enumerate the principal of them. When moist Pustules, and running Ulcers, require drying, and when, from an excessive Relaxation of the cutaneous Ducts, a gentle Constriction is requisite, for this Purpose a small Quantity of Flowers of Sulphur, used externally by way of Ointment, by contracting the Skin, hinders the further Discharge of the Matter, and has therefore been esteemed from the Times of *Aetius*, *Aretæus*, and *Oribasius*. This Medicine is to be dissolved in Linseed-oil, and reduced to the Consistence of an Ointment, by the Addition of a due Quantity of Cerus and Tutty. The Unguentum de Alabaistro, mixed with Tutty, is, also, no less efficacious in destroying superfluous Moisture. If Pain, Redness, Heat, and Itching, are joined, the Unguentum de Cerussa, prepared of a Solution of Lutharge in austere Vinegar, Cerus and Hog's-lard, seems preferable to all other Remedies, especially if, in order to render it more agreeable, Flowers of Sulphur, and a few Drops of the Oleum Rhodii, are added to it. To mollify and mitigate a dry and painful Itch, a Mucilage of the middle Rind of the Lime-tree, extracted with Rose-water, or with Linseed-oil, Cerus, and a little Saffron, reduced to the Form of a Plaster, is of singular Service.

But, if deep Ulcers are to be purified and consolidated, distilled Oil of Juniper and Bays, or Balsam of Sulphur, mixed with the same Oil and Æthiops Mineral, may be used. Lastly, we must not neglect the cosmetic Ointments, very useful in all Disorders of the Skin, after the Cure, the Method of preparing which we have laid down before. Besides these, some Remedies of the Ancients are very proper, and especially that of *Hippocrates*, who, *Lib. Epidem. 2.* recommends Lime-water for an Imperigo and Leprosy, which, according to the Advice of *Sponius*, ought to be so corrected, as to retain nothing of an ulcerating Quality. And the Method of *Sylvaticus*, *Cent. 1. Consult. 22, 23.* is equally good, who, after exhibiting two Pints of Goats Whey, mixed with Citron-juice, for fifteen Days, greatly extols the external Use of an Ointment prepared of Sulphur, Nitre, Mercury, and Oil of Sweet-almonds.

As to the particular Cure of a Tinea Capitis by external Applications, having first used all Remedies proper for a Cacochymy, the following Ointment is very efficacious:

Take of the Oil of Yolks of Eggs, one Ounce; of Gunpowder, Tobacco and Flowers of Sulphur, each two Drams; of the Essence of *Benjamin* and *Peruvian* Balsam, each half an Ounce: Make into an Ointment.

After the Use of this Ointment for some Days, the Head is to be washed with a Decoction prepared of equal Quantities of Wine, and a Lixivium boiled with Scordium, round Birthwort, Club-moss, Flowers of Lavender and Myrrh: When these prove ineffectual, some exhibit Preparations of Mercury internally and externally; apply over the Head a Cap, prepared of common Pitch, and Balsam of Capivi; by which means they take off all the Hair, and procure a Consolidation by means of the Oil of Yolks of Eggs. However, I must leave it to others to determine when this violent Method is proper, with this Caution only, that this desperate Remedy should never be applied but in desperate Cases.

Among external Remedies we may, also, reckon Baths, both natural and artificial; which last are commodiously prepared of pure Water boiled with the Roots of Elecampane, and those of the Dock, together with the Herbs Fumitory, Scabious, and Snapwort; and are very successfully used in a leprous Pfora and Elephantiasis, after the Use of Internals to purify the Blood, both for strengthening the Tone of the Skin, and washing off the impure and icaly Sordes. Nor do we find less Advantage from Baths prepared with the Scoriae of Iron or Copper; one of which partakes of the terrestrial, saline, sulphureous Substance of *Mars*; whilst the other is impregnated with a large Quantity of Sulphur, and vitriolic Salt, and consequently very efficacious in strengthening the Tone of the fibrous Parts. And for this Reason Baths of this Kind have proved very serviceable in cutaneous Diseases, arising from an excessive Thickness and Corruption of the serous and lymphatic Humours; such as the Itch, Serpigo, Herpes, and Achors. To this Class of Remedies we may, also, refer Baths of sweet River-water, boiled with Bran, and corrected with a due Mixture of new Milk, which afford great Relief, especially in a dry Itch, and all Disorders accompanied with an extreme Roughness of the Skin, and particularly in the troublesome Itching of old Men.

Since no Medicine at all, unless properly used, is of any Service, and since it is of great Moment to the due performing of every Cure, in what Order, and what Time, Remedies are adm-

nistred, it will not be improper to add the genuine Method of using these Topics, already proposed with due Caution and Circumspection. I must therefore observe, that external Remedies should always be the last, and never us'd, till the whole viscid, acrid, and corrupt Mass of the Blood and Humours has been reduced to a mild Temperament, by proper internal Correctors and Cleansers. Nor, during the Use of external Applications, should we entirely neglect Internals, especially Diaphoretics, which should rather be continued, that the Impurities, which may accidentally remain within, may be expelled. But if these Cautions are not observed, there arise a thousand Symptoms, much worse than the former, and often attended with the Hazard of the Patient's Life. Thus have I frequently observed, that an Itch seizing some particular Part, the Hands, for Instance, the Legs, the Nape of the Neck or Face, or when suppressed in a preposterous manner, by consolidating Liniments, has excited violent Disorders of the nervous System, as Cramps and epileptic Spasms, Iliac Passion, inflammatory Fevers with Deliriums, Cardialgias, Asthmas, and dropical Tumors, which are hardly to be cured, but by a Return of the former Distemper. The Curious, says *Hoffman*, may consult my *Medicina Consultatoria*; where, *Cent. 1. Case 28.* I have shewn, that a Spitting of Blood, and an Epilepsy, arose from an ill-cured Itch. In the Reflection upon *Case 9. Cent. 1.* I have shewn, that it contributed to a Vertigo. But mercurial Ointments are generally used with almost unavoidable ill Consequences. After anointing some Days, the Eruptions, which appeared in a few tendinous and nervous Parts, vanish surprisingly, because, without doubt, the fibrous and nervous Parts of the Skin suffer some Stricture from this active Medicine, by which the Particles of the peccant Humour are partly expelled from the subcutaneous Tubes, and partly repelled to the internal Parts. But certainly, if the Body is not before sufficiently cleansed from impure Sordes, Transpiration is diminished, and the Force of the morbid Matter impetuously determined to the internal Parts, especially those of the nervous and tendinous Kind. Whence, besides other Disorders, I have known fixed arthritic Pains produced.

There is still another cutaneous Disorder, call'd a *Gutta Rosacea*, which is nothing but an unseemly redish Colour of the Face, attended with little Scales, and sometimes with Pustules and unequal Tubercles, and arising from a more or less impure Serum carry'd to the capillary Vessels of the Face in a large Quantity. But there are several Species of the *Gutta Rosacea*, the most inconsiderable of which is, when a more than natural Redness appears about the Nose, in the Forehead, or certain Parts of the Face. The Disorder is still worse, if it is attended with Scales; and worst of all, if the Face is covered with Pustules and Tubercles. And these different Degrees depend on different Causes in various Patients: For every *Gutta Rosacea* does not proceed from depraved and impure Juices, which Nature advantageously propels to the Surface of the Body, and Skin of the Face; but is rather, in some, produced by a Turgescence and Distention of the small capillary, or even the lateral Vessels, which at other times convey no coloured Lymph. But it is otherwise, when the Cause of this Eruption is to be sought in the subtle, active, acrid Matter, which, the more volatile it is, the more it penetrates into the Texture of the nervous Membranes, and does far greater Mischief in those Bodies, which are afflicted with a Weakness of the nervous System, and a scorbutic Disposition of the Blood.

The slighter Stage of this Distemper in sound, robust Patients, and those infected with no noxious Taint or Impurity, requires a gentler and less troublesome Treatment; but, arising in such generally from a violent Ebullition of the Blood to the superior Parts, is often happily removed by cooling, diluting and deriving Remedies only. But it is more obstinate in scorbutic Bodies, in which it is never mitigated without such Remedies, as purify the Blood. In such Cases, therefore, I have with very good Success ordered the following Potion to be taken for several Weeks.

Take of the Waters of Fumitory, Brooklime, Water-creffes, and Sorrel, each one Pint; of Goat's-whey, three Pints; of the Arcanum Duplicatum, three Drams; and of depurated Nitre, one Dram: Make up into a Potion, of which one Pint is to be drank in the Morning, and another in the Afternoon, if it agrees with the Stomach.

For others, with an Intention to depurate the Blood, I have prescribed in the following manner:

Take of the Herbs Fumitory, Spleenwort, and Scabious, each one Handful; of the Roots of Succory, one Ounce; and of Caper-bark, half an Ounce: Of these, when mixt, boil one Ounce in two Pints of Goat-whey; and, when the Liquor is strained, let the Patient drink as much as he pleases.

In order to promote a due Evacuation, I, once or twice a Week, order an Infusion of two Drams of the following Ingredients, with the last-mentioned Medicines.

Take

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Take of Polypodium, half an Ounce; of the best Rhubarb, two Drams; of the Troches of Agaric, and white Mechoacan, each one Dram; of pure Nitre, the Arcanum duplicatum, and Fennel-seeds, each half a Dram.

Besides these, especially in more succulent Patients, we should not omit Scarifications in the Nape of the Neck, Scapulæ and Back, nor lenient Baths for the Feet, prepared of River-water and Bran, using for Drink a cooling Ptilan, or only Spring-water depurated with calcin'd Hartshorn; or with Wheat-flour, made palatable with Sugar, and Bark of Citron. Having previously taken these Measures, and other Circumstances not contraindicating, I apply the following Epithem, which I have found of all others the most efficacious.

Take of Frogs Spawn-water, and of the Waters of Elder and Bean-flowers, each two Ounces; of the Aqua sclopetaria, one Ounce; of the Magistery of Lead, two Drams; of the Sugar of Lead, two Scruples; and Vitriol of Copper, eight Grains: Mix, and apply.

But the utmost Caution is requisite in the Application of all Topics. For Experience has fatally taught us, that the worst Symptoms have followed a preposterous Use of them in Patients of impure and delicate Habits. Thus I have known Inflammations of the Eyes and Cardialgias produced by them; and I had once an Opportunity of observing an Hemisrania produced only by an Epithem prepared of Frogs Spawn-water, a Mucilage of Quince-seeds, Citron-juice, and Flowers of Sulphur.

Dr. Towne says, that the *Elephantiasis*, which is no rare Disease among the Negroes, bears a great Affinity to the best Accounts we have of the *Lepra* of the *Arabians*.

Those Blacks are the most subject to it, who, after severe acute Fevers, long-continued Intermittents, or other tedious Illnesses, are either much exposed to the Inclemency of rainy Seasons, and the cold penetrating Dew of the Evenings, or are constrained to subsist upon bad Diet, and undigestible unwholesome Food.

In the Beginning, the Person is weak, cachectical, and emaciated, till the Glut of vitiated Humours subside into the Legs and Feet, which are the Seat of this Distemper, and at this time begin to appear cedematous, and puffed up with watry Tumors, as in an Anasarca; but the Swelling does not retain the Mark of any Pressure in the same Degree, or so long, as in that Distemper.

By degrees, the Leg becomes more and more tumefied, and the Veins are much distended with varicose Swellings, which are very apparent from the Knee down to the Extremities of the Toes. Then the Skin begins to grow rugged and unequal; its vascular and glandulous Compages are enlarged, and a scaly Substance, with a sort of Chops and Fissures in the Interstices, appears upon its Surface. These seeming Scales do not dry up, and fall off; but are daily protruded forward, and stretched in their Dimensions, till the Leg is enlarged to an enormous Bulk, so that in Size, Shape, and all other external Appearance, it minutely represents the Leg of an Elephant, whence the Disease receives its Denomination.

But, notwithstanding that this scaly Coat appears to be harsh, callous, and insensible; yet, if it be touched ever so superficially with a Lancet, the Blood will freely issue out; and if the Epidermis, which affords this monstrous Appearance, be pared off to the Thickness of the Scarf-skin in those Parts, an Infinity of Orifices of the Blood-vessels will present themselves to the Eye, when assisted with a Microscope.

Tho' the Limb continues to proceed to this inordinate Magnitude, yet the Appetite of the Negro remains good, his Digestion strong, and his Secretions regular; nor is he sensible of any other Inconveniency, than the Burden of carrying such a Load of Leg along with him.

In this Condition, several have been known to live twenty Years, and even to a longer Period, and have performed cheerfully all the Duties of their Servitude, which were consistent with such disproportionate Limbs.

This Addition of Bulk is generally confined to one Leg at a time; but there have been several Instances, where it has invaded both together.

Amputation of the diseased Leg has been performed many times, but has always failed of a Cure; for the Distemper constantly takes Possession of the remaining Leg.

Sometimes White People, whose unhappy Circumstances have reduced them to Hardships but little inferior to what the Blacks are obliged to undergo, have given us Proof, that this Disease is not limited to one Colour, any more than to one Climate.

The same Author, speaking of another cutaneous Disorder, which he calls the *Faint Evil*, says, that many of the Negroes of the *Leeward Islands*, as well Natives as those imported from *Guinea*, are subject to this Malady, which is equally remarkable in its Appearances, as it is fatal in its Consequences, being of so virulent a Nature, that it eludes the Force of the most powerful Remedies hitherto discovered.

The Description of it is as follows: It first appears in superficial Spots of a brown copper Colour, dispers'd over several Parts of the Face, but especially on the Nose, without Un-

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evenness, or Sense of Pain in the Beginning. These Spots spread by slow Degrees, till a great Part of the Body is covered with them. Then the Nails curl inwards, and the Extremities of the Fingers and Toes begin to ulcerate. These Ulcers, which never digest, but generally look dry, without much Foulness or Fætor, gradually creep from Joint to Joint, till they have corroded all the Fingers and Toes. The next Attack this unconquerable Enemy makes, is upon the Trunk of the Body, where it spreads in Patches; and at this time the Distemper becomes infectious. These Defecations of the Skin never penetrate very deep into the muscular Flesh, but extend themselves in Circumference, and discharge a thin Ichor, which insensibly dries up, and emaciates the Patient, sometimes in a few Years; though there have been some Negroes under these Circumstances, who have protracted a miserable loathsome Life for the Space of ten, twelve Years, or longer.

Among the numerous Attempts which I have known made to resist this stubborn Disease, antimonial Preparations afford the greatest Relief; but I never heard, that they perfected a Cure: On the other hand, all Preparations of Mercury aggravate the Distemper, exasperate the Ulcers, and make them spread the faster. This is constantly true, in whatever Form, or with whatever Intention, Mercury be given, whether as alterative, purgative, or to raise a Salivation, either internally exhibited, or externally applied.

The Negroes, who are great Pretenders to the Knowledge of specific Virtues in Simples, apply several Kinds of Plants on these Occasions; but I could never observe the least beneficial Effect produced by them.

This being a Disease not taken notice of (as far as I know) by any Author, I hope I shall be excus'd for giving the Description of it; though I am forced to leave it to future Industry, and greater Sagacity than my own, to investigate the Cure.

LEPRAS. The Name of a Sea-fish, about a Foot long. *Lemery* says, it is esteem'd aperitive.

LEPTOMERES, λεπτομέρῃς, from λεπτός, subtil, small, minute, and μέρος, a Part. This Term is explain'd in that Part of the Preface, where the Medicine of *Asclepiades* is treated of, who introduced this Word.

LEPTUNON, λεπτόνων. Attenuating.

LEPTYSMOS, λεπτυσμός. Extenuation, or Attenuation.

LEPUS. Offic. Schrod. 5. 299. Schw. Quad. 103. Mer. Pin. 168. Raii Synop. A. 204. Aldrov. de Quad. Digit. 247. Jons. de Quad. 109. Gefn. de Quad. Digit. 605. Charlt. Exer. 23. THE HARE.

However delicious the Hare may be esteem'd among the modern Britons, our Ancestors thought it a Crime to taste it, as we learn from *Cæsar*; and in this they agreed with the *Jews*. Tho' the Hare lives on Vegetables and Water only, yet the habitual Exercise of this Animal exalts its Salts, and renders it somewhat alkaliescent; and this Tendency is much increas'd, if it is kill'd immediately after being heated by strong Exercise.

The Ashes, Head, Eye, Blood, Lungs, Brain, Heart, Liver, Gall, Kidneys, Testicles, Uterus, Coagulum, Fat, Dung, Hair, and the Bone called *Astragalus*, are used in Medicine.

The Ashes of the entire Hare burnt to a Blackness, or of the whole Skin, are recommended in the Stone, an Alopecia, and Chilblains, apply'd externally in the two last. The Head cures an Alopecia, and whitens the Teeth. The Eyes are esteem'd effectual for promoting Delivery, and for expelling the Secundines, and a Mole. The Blood cures Freckles, and Pimples of the Face; and is said to be good in a Dysentery, the Celiac Passion, and the Stone. The Lungs are good for an Asthma, Epilepsy, and for Chilblains, as a Topic. The Brain, rub'd on the Gums of Children, facilitates Dentition, and is good for Tremors of the Limbs. The Heart cures the Epilepsy, Pains of the Uterus, and a Quartan. The Liver moderates a Diarrhoea, and hepatic Flux. The Gall is good for an Ophthalmia, and the Tooth-ach. The Kidneys and Testicles are given for the Stone, to promote Conception, for Incontinence of Urine, and Disorders of the Bladder. The Uterus, also, promotes Conception. The Coagulum, or Rennet, dissolves concentered Blood, promotes Conception, and cures the Epilepsy. The Astragalus is recommended against the Gravel, Colic, Epilepsy, and for promoting Delivery. The Fat, especially if old, apply'd externally, is said to draw Thorns and Splinters out of the Flesh, to break Abscesses, and to cure Pains of the Teeth. The Dung is recommended for the Stone and Dysentery, and is esteem'd a good Application to Burns. And the Hairs stop Hemorrhages. *Dale* from *Schroder*.

LEPUS MARINUS. Offic. Charlt. Exer. 51. Rondel. 1. 520. Bellon. Aquat. 437. Gefn. Aquat. 475. *Lepus marinus primus*. Aldrov. Exang. 78. Jons. Exang. 9. THE SEA-HARE.

It is taken in the Sea, and, according to the Description of *Dioscorides*, resembles a small Loligo, or Cuttle-fish. Bruised either by itself, or with the *Urtica Marina*, (a sort of Shell-fish) and the Part anointed therewith, it extirpates the Hair. *Dioscor*.

LEPYRION, λεπύριον. The Shell of an Egg; or the Bark of Plants. *Hippocrates*.

LEROS, λῆρος. A slight Delirium. *Hippocrates*.

LESEOLUS.

LESEOLUS. *Paracelsus*, in his Book *de tribus primis Essentis*, calls the Jaundice *Morbus Leseoli*, and informs us, that the *Leseolus* will cure the Jaundice, and nothing else; but I don't find, that he explains it farther.

LESMIN. A Name for the *Jasminum*; *five Sambach Arabum*. *Alpini*.

LETA. A red Heat. *Rulandus*.

LETCHI. The Name of a delicious Fruit, which grows in *Canton*, and other Parts of *China*, much admir'd by the Inhabitants. It is esteemed heating, when eat in large Quantities. *Lemery des Drogues*.

LETHARGUS, from *λήθη*, Oblivion, and *ἀργός*, lazy, slothful.

Sleepy Diseases are related to apoplectic and paralytic Disorders, and often accompany them: The Account of them is so confused and intricate in most Writers, that Readers are entirely at a Loss, whom to credit: Hence some Physicians, as *Hollerus* and *Rondelitus*, have made many Complaints of that Confusion; and *Hartman*, *Riverius*, and *Paulus Barbet*, to avoid this Error, chose rather to treat of these Diseases in general, than any particular Species of them: But, as my Intention is to explain the various Causes and Cures of them, I thought it proper to be explicit in the Description of the various Signs: And whatever a diligent and long Experience has taught me, in this Affair, upon reading lately the *Pathologia Cerebri* of *Bartholomæus de Moor*, I found exactly agreeable to the Observations of that great Man, *Cap. 7. de Affectibus soporosis*. I shall, therefore, pursue his Method, and retain those Names which he has given to each Species of Somnolency.

By Sleepy Affections I mean, a preternatural Propensity to Sleep; and that, for the most part, an invincible Drowsiness, sometimes without, sometimes attended with, a Fever; arising from an Impediment of a sufficient Influx of the nervous Fluid unto the Medulla Oblongata of the Brain, and the Nerves themselves destined to Sense and Motion. There are several Species of these Disorders, the principal of which are, the Coma Vigil, Coma Somnolentum, Carus, and a Lethargy. All agree in this, that there is a preternatural Propensity to sleep: They differ, however, with regard to the Degree, Causes, and Cure; so that it cannot be amiss to examine accurately the Nature of each Species.

A Coma Vigil manifests itself by these Signs: The Patients complain of a burning and extensive Pain in the Head, attended with a Sense of Ebullition within the Head; they are very much inclined to sleep, and anxiously desire it: They, however, either do not sleep at all, or, if they do fall asleep, they awake immediately, but little relieved; but, as yet, free from any Delirium. Nor have long-protracted Watchings preceded this Affection: Whence, those who, after long Watchings, cannot refrain from Sleep, are not to be thought afflicted with this Coma. This Coma, likewise, differs from an obstinate Watching [*Pervigilium*], which is frequent in acute Fevers; for in this there is not any Propensity to sleep, which, however, is very troublesome to Persons afflicted with a Coma. This Disorder is always symptomatic; for it is often a Symptom in acute, burning, and malignant Fevers, and an Inflammation of the Dura Mater, and, in these, often precedes a Phrensy: And I have known, in some Instances, the same Symptom sometimes attend an Hemiplegia.

These are the usual Signs of the Coma Somnolentum: The Patients are languid, altogether free from any febrile Heat, nor have they, commonly; any other Complaints, than a constant Drowsiness; they always sleep involuntarily, and are often overcome with Sleep at their Meals, in Conversation with their Friends, or in the midst of their Business: They awake at Intervals, but, being drowsy again, soon after fall asleep. This Disorder principally seizes old Men, who live luxuriously, and neglect Bleeding; nor does it spare the Young, when adequate Causes concur: It is, likewise, always idiopathic, and in this, too, distinguishes itself from a Coma Vigil, in which they who desire Sleep, cannot procure it; which they, who are afflicted with a Coma Somnolentum, enjoy in abundance.

A Carus is a most profound Sleep, out of which the Patients cannot be roused by Clamours, Agitations, or even Prickings with a Needle; or, though they seem sensible of the Stimulus of the Needle, yet either do not speak, or immediately relapse into their former Sleep. This Disorder is either idiopathic, or symptomatic, and often attended with a Fever: But of this, as *Bartholomæus de Moor* judiciously observes, *Cap. 7. Pap. 198.* there are three Species. The first is, that which accompanies acute Fevers, about their Beginning, or their Increase, to which sometimes Convulsions and Hiccups succeed, which soon prove fatal. The second is, When the Patients, after having laboured under violent acute Fevers, on account of a very great Weakness, fall into a profound Sleep, and continue in it for several Days; being awaked, they answer Questions, but fall asleep again immediately, and at length awaking, recover, without remembering any one thing they spoke during that Sleep. Such a Sleep, likewise, happens in acute Fevers, especially eruptive, about the critical Days; and then, if attended with a Sweat, is a very good Presage. The third Species of a Carus occurs in Persons

at the Point of Death from a Fever; for, a Day or two before Death, the Patients, exhausted of all their Strength by the Violence of the Fever, lie deprived of Sense and Motion, and oppressed with a profound Sleep, and under that expire.

Lastly, the Lethargy, so called, *ἀπὸ τῆς λήθης*, from Oblivion, is an heavy and perpetual Sleep, with scarce any Intervals of Waking.

Being awaked, they answer; but like those who are prematurely raised from a deep and quiet Sleep; but, ignorant of what they say, and forgetful, they immediately relapse into their former Drowsiness: Some call for the Chamber-pot, take it into their Hands, but, falling asleep again immediately, forget to make Water; or, gaping, forget to shut their Mouths. Thus appears the Difference between that and a Coma Somnolentum. But a Lethargy is accompanied with a Fever, which becomes a Symptom thereof, and is mild, and principally manifests itself by a Frequency of the Pulse, and a less frequent and febrile Respiration: Hence it differs from a Carus, which is often a Symptom, or the Consequence, of a Fever, and is, likewise, attended with an Insensibility. It differs, also, from an Apoplexy, which invades suddenly, with an Abolition of all Sense and voluntary Motion, and a Stertor; and kills sooner than a Lethargy, as it is seldom continued longer than the seventh Day.

Having premised thus much, we shall add some anatomical Dissections of Persons who have died of these Disorders, and then enter into an accurate Examination of the Causes. The learned *Bonetus*, in his *Sepulchretum Anatomicum*, *Lib. 1.* furnishes us with Dissections of Persons, who have expired in sleepy Affections. It would be too tedious to recount all the Instances he produces; it shall therefore suffice, to quote the principal Heads of them: Thus he found, in many, a copious Serum diffused through the Substance of the Brain, yet in such a manner, that the exterior or cortical Part of it, with the Meninges, was principally overflowed with Water: And he likewise remarks, that in some he found the interior Parts and Ventricles of the Brain, the Cortex being entire, replete with extravasated Serum; but these Subjects were never, through the whole Course of their Lives, afflicted with a sleepy Affection. The more this inundation of the Brain penetrated into the Medulla thereof, the greater Degree of Sleepiness he observed to have continued during Life. Farther, in some, who died of Drowsiness, he found Abscesses, Scirrhuses, and Tumors, in the Brain; but those, also, possessed only the anterior and cortical Region of it. And, lastly, in some, the Brain being dry, and free from a serous Colluvies, he observed the Vessels of the Pia Mater particularly very much distended with thick Blood, and in a manner varicose. In Lethargics especially, *Joannes Faber Lynceus*, as *Harendez*, *Lib. 4. Cap. 18* testifies, observed the Membranes of the Brain inflamed.

For the Illustration of the Nature of these Affections, we will add some Observations relative to them. *Wepfer* and *Peyer* have taught us how to procure Sleep, by Art, in Dogs, by a greater or less Compression of the Brain, when deprived of the Cranium: And there is a very remarkable Instance of a Beggar at *Paris*, who, by some Accident, had lost Part of his Skull, so that his Brain was laid bare: He, from a slight Compression of the Brain, suffer'd a Dimness of Sight; from one a little more violent, a Ringing in his Ears; from one still more violent, a Vertigo, and Sleepiness; and, when the Pressure ceased, he was again freed from these Symptoms. This Observation is greatly illustrated by the common Practice of Trepaning; by which, in Subjects affected with a Sleepiness, from an Extravasion of the Blood, made between the Cranium and the Brain, and the consequent Pressure, the stagnating Humour being discharged by the Help of the Trepan, we are assured, from Observations of undoubted Credit, that the Senses immediately return, and all Drowsiness is removed. From hence we certainly conclude, that the material Cause of sleepy Affections is primarily and originally contained within the cortical Substance of the Brain.

Now, from Physiology, we learn, that natural Sleep depends upon a more diminished, and more languid Influx of the nervous Fluid into the Nerves destined to Sensation, and voluntary Motions; and that this languid Influx is partly owing to the Relaxation of the Nerves themselves, partly to a Want of nervous Fluid, partly to the slow Circulation of the Blood through the Vessels of the Brain, and Membranes. Upon comparing this with what has been said in the preceding Paragraphs, it follows, that the immediate Cause of sleepy Affections is a very languid and diminished Influx of the nervous Fluid, from the cortical Substance of the Brain, into its Medulla; and from thence into the Nerves destined to Sense and Motion. The Causes of the preternatural Impediment of this Influx seem principally three; first, either a too great Want of the Fluid itself; or, secondly, a Laxity of the Tubes which convey it; or, lastly, a Pressure upon the cortical Substance of the Brain; and this arises either from the Blood passing slowly through the Brain, and the Meninges thereof, or absolutely stagnating, or some foreign Matter incumbent on the said cortical Substance, by which the Medulla, everywhere joined to the Cortex, is pressed together, and, consequently, cannot receive a sufficient Quantity of the Fluid.

But, since there are several Species of Sleepy Affections, let us inquire into each of them more accurately. A Coma Vigil is an intermediate Disease between a Pervigilium, and sleepy Affections. Where there is an insatiable Desire of Sleep, though it cannot be obtained, it is a Symptom either of an Hemiplegia, or acute Fevers, especially when attended with an Inflammation of the Dura Mater, and often precedes a Phrensy. Any one will easily perceive, that the Cause of this must be mixed, by which the Influx of the nervous Fluid into one Part of the Brain is more languid, into another more increased. Let us, therefore, consider, whether such a Cause can take place in these Disorders. As to acute Fevers, we argue thus: If in them a Coma Vigil generally precedes a Phrensy, which proceeds from an Inflammation of the Membranes of the Brain, and, in our Country, very often symptomatically attends malignant eruptive Fevers; if, likewise, it is joined with an hot and fervent Pain, it seems very probable, that a Coma Vigil in those Fevers is caused by a Beginning Inflammation in one Part of the Membranes surrounding the Brain: But as the Inflammation supposes an increased Collection of Blood in a certain Place, and a Stagnation, it necessarily follows, that some of the cortical Part of the Brain is compressed thereby, and consequently that the Influx of the Fluid into the Medulla is diminished, with the subsequent Effect of Somnolency. While this happens in one Part of the Brain, yet in another, from the Blood being quickly agitated by a febrile Motion, an uninterrupted Secretion of the nervous Fluid continues; which, the more copious it is, the more does it bring on Watchings; nor does it suffer the present Inclination to sleep to be put in Execution. Whatever, therefore, in acute Fevers can increase the Orgasm of the Blood, and assist its more copious Progress to the Head, that contributes remotely to bring on a Coma Vigil, as spirituous, hot, alexipharmic Medicines, a Regimen too hot, and Refrigeration of the Extremities in the Small-pox.

There is no Difficulty in accounting for the Method, by which a Coma Vigil may be joined with an Hemiplegy: For if we consider, that in this Affection the Beginning of the Nerves is compressed only on one Side, and so the Influx of the moveable Fluid into one Side only impeded, while the other is free, we shall soon understand, likewise, that the Cause of the Watching may exist in one Place, or Side, and of the Somnolency in another, of which the Coma Vigil consists; because the nervous Juice, the Secretion being prevented on one Side, is carried in greater Plenty to the other; which is proved, among other Things, by the convulsive Agitations of the sound Side. But why are not all Persons afflicted with an Hemiplegy, seized with a Coma? Read what we have collected above from *Bonetus*, and you will find, that a Compressure on the Beginning of the Nerves only, is not always attended with Somnolency, unless the cortical Substance of the Brain be at the same time vitiated.

A Coma Somnolentum, an Affection more frequent than a Lethargy, and always with a Fever, ought to have such a Cause as is capable of stopping the Passage of the nervous Fluid from the cortical Substance to the Medulla, not only in one Part, but throughout the whole Brain. 1. Such is the too great Relaxation of the Canals conveying the Blood thro' the Brain, on account of which the Blood can neither circulate briskly, nor can a sufficient Quantity of nervous Fluid be secreted; as it commonly happens in plethoric old Men. 2. A difficult Circulation of the Blood, especially when thick and impure, thro' the Head, and from thence a Compression of the Brain. Hence plethoric Persons are sleepy; hence scorbutic and hypochondiac Persons frequently fall into this Drowsiness, and the more when the Humours are compelled more plentifully to the Head by Spasms of the lower Belly. And from hence too we must derive the Origin of that Species of Coma Somnolentum, which, according to *Riverius*, sometimes happens to Children afflicted with the Worms in the Intestines; for in this Case the vital Juices are forced to the superior Parts by Spasms of the Abdomen. Hence very plethoric Persons, upon the Access of any Cause moving and expanding the Blood excessively, as Drunkenness, are often plunged into a profound Sleep, and absolutely destroyed by it. 3. An excessive Collection of Serum in the Brain, and its Membranes, and an Extravasation thereof; whence injudicious Suppressions and Exsiccatations of Runnings of the Ears, a Coryza, and Ulcers, contribute to this kind of Disorder; nor is it uncommon for a Coma Somnolentum instantly to follow an Itchury, or entire Suppression of the Urine, which, the Flux of Urine being restored, immediately ceases.

The first Species of a Carus, which seldom, and only in very plethoric Persons, occurs in the Beginning or Vigour of acute Fevers, principally those of the continual Kind, depends upon the excessive Abundance and Ebullition of the Blood, by which the Vessels of the Brain, and its Membranes, are so expanded, that they compress the soft Substance of the Brain, and impede the Entrance of the nervous Juices into the medullary Part, throughout the whole Head: Hence that Juice is the more copiously forced through the Cerebellum into the Parts which have the Conduct of the vital Functions, and renders the Systole of the Heart more vehement. Hence it is evident,

that all heating and powerful Remedies applied in those Fevers, a Neglect of Venesection, and an imprudent Exhibition of Narcotics in order to procure Sleep in Fevers, must necessarily contribute to produce a Carus.

Many Causes conspire to the Generation of the other Species of a Carus, which follows after the Cure of acute Fevers: For it is to be observed, that the fluid, as well as the solid Parts are surprisingly altered by a febrile Heat; the Solids are deprived of their natural Vigour and Tone; the Fluids, by the Violence of a continual Attrition, are resolved, and acquire a Consistence not over-agreable to the vital Oeconomy. For the more humid and generous Part of the vital Juices, no Nutriment being added, is dissipated, and conveyed through various Parts out of the Body; and hence results a Deficiency of the nervous Fluid, a vapid, and, as it were, gelatinous Consistence of the Lymph and Serum, and a Coagulation of the Blood itself. By a Concurrence, therefore, 1. Of the Weakness of the Vessels. 2. Of a Want of nervous Juices. 3. Of a Compressure of the Brain, made by the Blood passing through it with Difficulty, it must necessarily follow, that a preternatural Drowsiness, with a Diminution of the Senses, will arise: Which happens more easily, if, during the Fever, powerful Remedies, which weaken the Solids, or absolute Narcotics, have been administered. And if these Defects of the Fluids and Solids are increased, as is common in the third Species of a Carus, the coagulated and unactive Juices at length stagnate in the debilitated Vessels, are extravasated, and thus bring on unavoidable Death.

The Causes of a Lethargy are the same which we have assigned for a Coma Somnolentum, except that they are more violent, and penetrate deeper into the cortical Substance of the Brain, so that they not only induce a Sleepiness, but the external and internal Senses, likewise, become languid. The Whole turns upon this, that in a Coma, as well as a Carus, there is, as yet, no Extravasation of Blood, or Serum; but this is, at length, produced as an Effect, and found in Subjects opened after Death. There is in these Species of sleepy Affections a difficult and debilitated Circulation of the Blood through the Vessels of the Meninges and Brain, and a greater or less Degree of Stagnation of the serous Parts. But in a Lethargy there is either a Separation of the thin Serum made thro' the Pores of the Arteries, or an absolute Extravasation.

But a Lethargy is distinguished from a Carus in this; that the Patients, being roused in the former, answer; in the latter, they do not. There is, likewise, a Difference between an Apoplexy and Somnolency; for in an Apoplexy the Respiration is difficult, and it terminates in a Palsy, which does not happen in a Carus. It differs, likewise, from a Syncope, in which the Pulse is small, or very obscure and languid, and the Face cadaverous; in carotic Patients the Pulse is large and strong, and the Colour of the Face appears rather florid: Nor does it differ less from an hysterical Fit, because such Patients are without all Respiration, and afterwards understand and remember: But in a Carus they neither understand, nor remember in the Fit; they have their Eyes always shut, or, if they are open'd, they close them immediately.

As from the Premises, the special and immediate Causes of Sleepy Affections are very evident; so, in general, it ought to be known, that all those things conduce to the Production of them, which promote a difficult Circulation of the Humours through the Vessels of the Brain and Meninges, and a Stagnation thereof, and impair the elastic Force of the Vessels and Membranes. Among the remote Causes may be reckoned cacochymic, cachectic, scorbutic Indispositions of the Body; a Debility, occasioned by too much Grief, Sorrow, or a Disease of long Continuance, or enormous Profusion of Blood; an Abuse of inebriating Liquors, Spirit of Wine, Beer too spirituous and full of Hops; frequent Surfeits; inhabiting a moist Apartment, where the Air is dense and vapid; and a humid and cloudy Constitution of the Air; Winds blowing long from the West; the Winter Season; and an Abuse of Tobacco.

Besides, it may be frequently observed in Practice, that a Coma Somnolentum, or even a Lethargy, is excited in sanguineoplegmatic Subjects of a gross Habit, and full of Blood, from a Suppression of the Haemorrhoids, Menstrues, or any usual and critical Haemorrhage whatsoever. Nor is it uncommon for the same Affections to be generated by checking habitual Morning-sweats, or those which are critical; and, also, by a Suppression of any serous Excretions, or by a sudden Extenuation of cedematous Legs and Feet. Not to mention, that in those whose Brains are weak, if too large Quantities of spirituous Liquors are taken, or if the Body is much refrigerated whilst heated with such Liquors, a profound Sleep, with a Stupor, may be produced; which, however, ceases in a short time, without any Danger. Comatous and lethargic Affections are, also, excited by a Cessation of arthritic or podagric Pain, which before returned once or twice in a Year: And I have seen a Lethargy, accompanied with a convulsive Asthma, immediately cease, together with the Asthma, upon the Return of the Pain to the Joints. Among the Causes of these Disorders we may, likewise, number the excessive and unreasonable Use of vaporous Substances; for in weak Subjects I have often observed heavy and more or less dan-

dangerous Somnolences produced by Wormwood and Opistes, given in large Quantities, by Narcotics, Smoak of Sulphur, and the Vapour of burning Coals, confined in too narrow a Space. The excessive Use of fragrant Things, likewise, is prejudicial. *Strabo, Lib. 16.* tells us, that the Inhabitants of *Sabæa* fall into this Disorder, from the Odour and Fragrancy of the Flowers and Fruits produced in that Country. I have known Instances, where the Smell has been entirely lost, by a continued Use of sweet-scented Substances, because these seem to induce a Relaxation of the Membranes of the Brain, and nervous Membranes of the Nose. To the Causes of sleepy Affections, also, belong Violences done to the Head: Thus *Galen, Lib. de Instr. Odor. Cap. 6.* enumerates among these, the Compressure of the Brain made by the Surgeon, who perforated the Cranium, and Membrane investing the Brain: And I, says *Mercurialis, in Prælect. Batav. p. 22.* once saw a Person, injured by a Surgeon with an unseasonable Perforation of the Cranium, become immediately carotic.

The Prognostic of these Affections is not always of the happy Kind; but more or less fatal, according to the Violence of the Causes: And indeed, a Coma Vigil often presages a Phrensy, and Convulsions; and, in malignant Fevers, often changes into a mortal Sleep: But a sound Sleep, as *Hippocrates* remarks, in *Coac. Prænot.* sometimes, in Fevers, presages a certain and firm Crisis, and is not bad. When Pains attend a Carus, according to the same *Hippocrates*, they portend a Convulsion: The older, more weak, and more impregnated with impure Juices, the Bodies are, the more Danger does a Coma portend; and easily, as *Mercatus* says, *Lib. 1. Cap. 12.* terminates in a fatal Lethargy. A Carus is the more dangerous, the more violent the attending Fever is, and the worse its Symptoms are, and the more crude the Urine. However, the first and second Species are often cured; the third is always mortal. A Lethargy is never without Danger; but that is worst, which is accompanied by a Tremor of the Limbs, and a cold Sweat of the Face.

THE CURE.

A Physician, in the Cure of sleepy Diseases, should regard these three Intentions; first, to rouse the Patient from his Sleep; next, to remove the Difficulty of Circulation, the Stagnation or Extravasation of the Blood in the Head; and, thirdly, to restore the lost Strength of the Membranes, and Vessels of the Brain.

For shaking off Drowsiness, and awaking the Patient, those Remedies are efficacious, which act upon the nervous Parts, by agitating them, vellicating and inducing a tremulous and oscillatory Motion, through the whole nervous System: Such are, 1. Powerful Acids; and, of these, the Preference must be given to the Spirit of Verdegrise, (which is nothing but a most concentrated Spirit of Vinegar) mixed with Essence of Castor: This, applied to the Nose, in stimulating and penetrating, is superior to all others. 2. Volatile Salts, as urinous Spirit of Sal Ammoniac, prepared with Quick-lime; which being applied to the Vertex, or, what is still better, put into the Nose, excites Sternutation, and greatly shakes off the Torpor and Drowsiness. 3. Fetid things, as Galbanum, Partridge-feathers, and others, burnt; so that the strong Scent may affect the Nose. 4. Cold Water suddenly poured all over the Head, which, by strengthening, at the same time, the Membranes of the Brain, readily dispels Sleep. 5. Cataplasms prepared of strong Vinegar, Rue, Bay-leaves, Tops of Savory, Mustard-seed, Castor, and Camphire, applied to the Head, when shaved, the Forehead, and the Temples.

The Efficacy of these is promoted, and, at the same time, the serous Colluvies, if it is offensive, is derived from the Head, 1. By Sternutatories; the best of which is Salt of white Vitriol, if ten Grains of it are dissolved in half an Ounce of Marjoram-water, and drawn up the Nose. 2. By Vescicatories of Cantharides, somewhat large, and laid on the Feet and Neck; for these both give Motion to the solid nervous Parts, and make a Revulsion of the serous Humours. 3. By Cupping-glasses, either with or without Scarification. 4. By strong Frictions of the inferior Parts. 5. By acrid Clysters. 6. Acrid and stimulating Clysters are, in such Cases, of very great Service, to which Sal Gemmæ, common Salt, or the Root of Squills, are added, with a View of increasing the Stimulation.

The Patient, by the Help of these, being roused from his Drowsiness, it remains, that an equal Circulation of the Humours through the whole Body be restored, and then the debilitated Parts strengthen'd. The first Kind is answered by frequent Bleeding, whilst the Sleepiness lasts, if the Vessels are turgid with Blood; and much more should it be perform'd, when the Sleepiness is conquer'd, in order to prevent a Relapse: Then, likewise, if the first Passages are loaded with Excrements, or seized with Spasms, the Body ought to be open'd with a gentle Laxative. Nervous, mixed with diaphoretic, Medicines, contribute to disperse the Stagnations of the Humours, and, also, to strengthen the infirm Parts: Among these, the Essence of Aloeswood and Amber, with the Spirit of Lilies of the Valley, of Sal Ammoniac, and acrid Tincture of Antimony, are of great

Efficacy. And Salt of Hartshorn, with Salt of Amber, Cinna-bar of Antimony, and Bezoardic Mineral, in the Form of a Powder, have very great and salutary Effects.

Lastly, Relapses into sleepy Disorders may be prevented, partly by a Removal of the Causes producing them: And since a Suppression of the sanguine Excretions, or habitual arthritic Paroxysms, contribute very much to the Generation of these Disorders, he will not do amiss who endeavours to recal these Fluxes and Pains, and preserve a regular Succession of them. In Diet; Idleness, Drunkenness, Meats difficult of Digestion, and spirituous Things, must be avoided. Let the Body be exercised carefully: All Repletion is to be avoided; and Fasting, and eating sparingly, is of Use: The Patient must entirely abstain from Fish, Milk, and Cheese; and, amongst Fruits, all that are watery must be abstained from: He must eat more roasted than boiled Flesh. Bread must be entirely cleansed of the Darnel, with which it is often intermixed. Let old infirm Men use Wine, as their Milk: Let them not protract their Sleep too long; let them be cautious of Affections of the Mind; let them frequently enjoy the Conversation of their Friends; let them please themselves with convenient Journeys; let them take care to preserve the Excretions, as well by Stool, as by the Pores of the Skin; and let them not forget the usual Bleeding, at their stated Times.

PRACTICAL CAUTIONS.

As the Causes of sleepy Disorders, and the Species of them, are very different, so the Method of Cure is various: Let us therefore consider, what may be proper for each Species. A Coma Vigil, as it arises commonly, in acute Fevers, from an excessive Quantity of Blood, whilst an Inflammation of the Membranes of the Brain is approaching, so it absolutely requires such Remedies as may not be prejudicial to the Fever: And, for this End, there should be a large Quantity of Blood taken away; if the Fever has not continued beyond the third or fourth Day, as *Gabelboverus, Lib. 1. §. 8.* and *Forestus, Lib. 10. Obs. 34.* affirm. After Bleeding, the Body, if it is obstructed, should be open'd with Clysters, which must not be very acrid; and then Remedies should be given, which, by diluting and cooling the Humours, check the Heat thereof: For this Purpose, the absorbent Powders, gently nitrous Medicines, in a Draught with diaphoretic Antimony, and diaphoretic and analeptic Waters, wild Emulsions of Poppies, and acidulated Remedies, are of great Use in malignant Fevers. I, also, approve very much of the Medicine recommended by *Lotichius*, which consists of Rob of Currants, three Ounces, dissolved in two Pints of Spring-water, and render'd gratefully acid, by an Addition of Spirit of Vitriol.

Sweet Spirit of Nitre, by its cooling and gently anodyne Quality, is of great Use: Nor are external Applications to be neglected; as Cataplasms prepared with Vinegar, or the Unguentum Alabastrinum, applied to the Temples; live Animals dissected, and laid on the Head: Not neglecting a quiet and mild Regimen.

As a Coma Vigil, familiar in an Hemiplegy, is of longer Continuance, so it is more difficult to be cured. He will perform but little, who attempts the Symptom only, and neglects the principal Disorder: Nothing remains, but to cure the Hemiplegia by proper Methods; for then natural Sleep will spontaneously follow.

A Carus, particularly the first Species of it, requires plentiful Bleeding, if the proper Opportunity is not suffer'd to elapse; then the Patient must be roused by Clysters, render'd stimulating by Squills; by Vescicatories; by putting distilled Vinegar into the Nostrils; and then, internally, the Orgasm of the Humours must be compos'd by cooling fixed Diaphoretics, and Acids. The second Species of the Carus, as it is often critical, demands scarce any Assistance from Medicine; but, being left to itself, terminates in Health. The third, and most dangerous, scarce admits of a Cure; yet it is proper to try, whether the Patient can be moved by Vescicatories, and then to have recourse to Diluters and Analeptics.

A Coma Somnolentum is very properly divided into serous and sanguine. The first requires either the natural serous Excretions to be restored; or artificial ones to be substituted in their room. A Suppression of Urine is to be removed by proper Remedies: Gouty Fits are to be invited by Frictions of the Feet, Vescicatories, relaxing Applications, and warm Baths. Of great Use, likewise, are Sternutatories, by discharging the Serum through the Nose, and stimulating the Nerves to Motion. When a viscid Phlegm offends the Stomach, an artificial Vomit is serviceable; for which Purpose, half a Scruple, or a whole Scruple, of powder'd Squills, or a few Grains, two, for Example, of emetic Tartar, may be given successfully, mixed with some laxative Potion.

On the contrary, a Coma Somnolentum, which deduces its Origin from an hot Cause, that is, a difficult Passage of the Blood through the Head, or a Stagnation, as commonly happens in hypochondriac and scorbutic Persons, requires greater Circumspection: For all hot and spirituous Remedies are to be avoided,

avoided, as Poisons; and, instead of these Clysters, Bleeding, gentle Laxatives, cooling and nervous Powders, and others of that Kind, should be substituted: And all these are proper for a Lethargy; only that often requires more efficacious exciting Remedies.

Whatever sleepy Affections proceed from an Extravasion of the Blood or Serum within the Meninges and Cranium, produced by external Violence, cannot be cured, before the extravasated Humour is discharged by trepanning: Though, before this Operation, Bleeding, if the Quantity of Blood is redundant, is highly proper.

A red Face, Eyes turgid with Blood, tumid Veins, and strong Pulsations of the Arteries, indicate Bleeding to be very proper in sleepy Affections: After this, if the florid Colour of the Countenance, and Strength of the Pulse, continue, there is Hope of a Recovery; but at the same time it will be necessary once more to open a Vein, because insufficient Bleeding is capable of doing Mischief. The thicker the Blood is supposed to be, the larger Incision should be made in the Vein, that there may be a more extensive Outlet for it.

After Bleeding, the Body must be opened, either by a Laxative given internally, or a Clyster; nor indeed, without these previous Evacuations, ought any other Kind of Remedies, as Strengtheners, Diaphoretics, or Sternutatories, to be administered, because, by them, a greater Motion and Impetus of the Humours to the Head is excited.

In every sleepy Disorder it is proper to avoid warm Baths, vaporous Substances, and such as incline, by their fragrant and strong Smell, to Sleep. Much more absurd is it to use Narcotics, sulphureous Remedies, Opiates, or Medicines in which Saffron or Poppies are Ingredients. To this Class belong theriacal Medicines, which the Antients used to prescribe in these Affections; for this is adding Fuel to the Fire.

External Volatiles, generally applied to the Nose, should never be used unless in Somnolencies proceeding from a cold serous Cause; and, therefore, we must abstain from these in all Sleepiness attending a Fever, or which arises from an erysipelatous, purpurine, or eruptive Matter conveyed to the Brain; for, in these Cases, fix'd, but, at the same time, penetrating Acids are used with more Success. Of this Kind is the Oxyrrhodium, which *Avicenna* and *Rhazes* long ago recommended; to which *Marjoram* and *Rue* may be added.

Though the drinking of hot Mineral Waters, and much more the Acidulæ, should not be absolutely advised in idiopathic Diseases of the Head; yet in Somnolencies which affect hypochondriac Persons, from a suppressed Flux of the Hæmorrhoids, or a Recess of the Gout, I have found a surprising Quality in the *Caroline Springs*, those particularly which break out near the Mill, in restoring the gouty Paroxysms, and dispelling Drowsiness.

We must, above all things, take care not to use Sternutatories in the Beginning of this Disorder, to rouse the Patient from Sleep, especially in plethoric Persons; because, by an unseasonable Remedy of this Kind, a greater Afflux of Humours to the Head is caused, and from thence there is great Danger of an Apoplexy. *Frederic Hoffman*.

A Carus is a slight Apoplexy, but an highly profound Sleep, accompanied with a Fever, arising principally from such Causes as compress the Brain, as yet uninjured; or such as obstruct it, but are, at the same time, more easily removed than in an Apoplexy. In a Carus there is some, though a fleeting and transitory, Perception; and some, though a small Degree of, Sensation.

Hence, upon the Removal of a Carus, the Patient has his Health restored, unless, perhaps, a kind of Shaking of the Head should remain for some time.

The Cure may be collected from the Article APOPLEXIA. The Coma Vigil, the Coma Somnolentum, and the Cataphora, seem to be only slight and gentle Species of a Carus.

But a Lethargy is a slight Species of Apoplexy, arising from a cold, viscid, and aqueous Cause; for which Reason the Knowledge and Cure of it is to be gathered under the Article APOPLEXIA and PARALYSIS. *Boerhaave Aphor.*

LETHE, λήθη. Forgetfulness. This, when it occurs in Fevers, is, by *Hippocrates*, esteemed of very bad Preſage.

LEVATOR *Scapulae proprius*, by *Winslow* called *Angularis*.

This is a long and pretty thick Muscle, about two Fingers in Breadth, lying above the superior Angle of the Scapula, along the posterior lateral Part of the Neck of that Bone.

It is inserted above, in the Extremities of the transverse Apophyses of the four first Vertebrae of the Neck, by four fleshy Branches ending in short Tendons. Sometimes the second, sometimes the third, or both, and sometimes the fourth of these Branches are wanting; these Defects being made up by the Lagenæ of the rest.

From thence these Branches run down a little obliquely, and then, uniting together, they are inserted into the superior Angle of the Scapula, and in the Edge of its Basis, from thence to

the small triangular Space, being there covered a little by the Rhomboides.

This Muscle is easily divided into two, through its whole Length. It is covered by the Trapezii; and its Insertions in the Neck are sometimes mixed with those of the neighbouring Muscles.

The Angularis, by its Insertion in the superior Angle of the Scapula, moderates the Descent of that Angle, while the Trapezii and Serratus major raise the Acromium. Afterwards, when these two Muscles cease to act, the Angularis raises the superior Angle, and, by that means, depresses the Acromium.

Hence we see, that this Muscle is improperly called *Levator Scapulae proprius*, since it does not raise, but depresses the Scapula. That Name would agree better to the Serratus major. Whether this Muscle can have any Share in moving the Neck, the Scapula, in which it is inserted, being kept immovable by other Muscles, I cannot at present determine. *Winslow's Anatomy*.

LEVATORES ANI. These Muscles rise fleshy from each Side of the Os Pubis, internally within the Pelvis, as also from Part of the Os Ilium and Sacrum: From these Places, like Lines drawn from a Circumference towards a Centre, its Fibres descend over the Musculi Marſupiales, to their Implantation at the lower End of the Intestinum Rectum in the Anus. The Use of these Muscles is principally to suspend and draw the Anus upwards, lest the Fæces should be burdensome to the Sphincter. In their Descent on each Side forwards, from the Os Pubis, they pass close over the Glandulæ proſtatæ, in a manner embracing them; by which Mechanism they are rendered capable of compressing them; and, by a Retraction of the Anus, at the same time act on the Vesiculæ seminales, in order to promote the Emission of the seminal Juices, in Coition. *Cowper*.

LEUCACANTHA. A Name for the *Carlina*; *caulescens*; *flore magna albicante*.

LEUCADENDROS, *Africana*, *arbor tota argentea, sericea, foliis integris*. A Name for the *Conocarpodendron*; *foliis argenteis, sericeis, latissimis*.

LEUCADENDROS, *Africana*. *Arbor argentea, summo folio crenato*. A Name for the *Conocarpodendron*; *folio crasso, nervoso, lanuginoso, supracrenato, ibique limbo rubro; flore aureo; cono facile deciduo*.

LEUCADENDROS, *Africana, sive Scolymocephalos, folio angustiori, apicibus tridentatis*. A Name for the *Conocarpodendron*; *folio rigido, angusto, apice tridentato, rubro; flore aureo*.

LEUCADENDROS *similis Africana arbor, argentea, folio summo crenaturis florida*. A Name for the *Hypophyllocarpodendron*; *foliis lanuginosis; in apice trifido, rubro, quasi florescens*.

LEUCANIA. The same as LAUCANIA.

LEUCANTHEMUM.

The Characters are;

It agrees in every thing with the Chrysanthemum, except in the white Colour of its Semiflorets.

Boerhaave mentions eleven Species of this Plant; which are,

1. Leucanthemum; radice repente; foliis latioribus, serratis. T. 492.
2. Leucanthemum; vulgare. See BELLIS MAIOR.
3. Leucanthemum; vulgare; caule villis canescente, T. 492.
4. Leucanthemum; quæ Bellis sylvestris; barbulis fistulosis. Ind. 35.
5. Leucanthemum; Canariense; sapore Pyrethri. H. C. *Leucanthemum; Canariense, foliis Chrysanthemi, sapore Pyrethri*. T. 666. *Chamæmelum, Canariense, ceratophyllum, fruticosius, glauco folio crassiore, sapore servido, Magola ab incolis dictum*. M. H. 3. 35. 7.

The Root, Leaves, Flowers, or Wood, chewed in the Mouth, are of so penetrating a Taste, as to cause an Inundation of Lymph in the Mouth, as if it proceeded from a Fountain; for which Reason they are of excellent Service in the Tooth-ach: The fresh Leaves, in particular, are properly applied to a pained Tooth; for I take this Plant to be both resolvent and aperitive. It is taken for Pyrethrum, or Pellitory of Spain, and not without Reason: This, however, is not the Pyrethrum of the Shops, but may serve instead of it in dry Diseases of the Viscera and Intestines. *Cesalpini* highly commends an Ointment of this Plant for the Itch. *Historia Plantarum*, ascrib'd to *Boerhaave*.

6. Leucanthemum; folio Absinthii brevior; Alpinum. Juss.
7. Leucanthemum; folio Absinthii; Alpinum. Classi.
8. Leucanthemum; Lusitanicum; Chamæmeli folio crassiore.
9. Leucanthemum; montanum; foliis Chrysanthemi. T. 492.
10. Leucanthemum; Tanacetii folio; flore majore. *Tanacetum, inodorum, flore majore*. C. B. P. 132. *Matricaria, tanacetifolia; flore majore, semine umbilicato*. T. 493.
11. Leucanthemum; Bellidis facie; umbelliferum; semine papposo. *Bellis, major, ramosa, umbellifera, Americana*. Park. Theat. 528. *Aster, annuus, ramosus, albus, latifolius, Canadensis*. M. H. 3. 122. *Boerb. Ind. alt. Plant. Vol. 1. p. 108*.

LEUCAS

LEUCAS *Montana*. A Name for the *Galeopsis*; *five Urtica* *iners, flore luteo*.

LEUCE, λευκη. A Species of Leprosy. See LEPROA.

LEUCELECTRUM. White Amber. *Blancard*.

LEUCISCOS, λευισκος. The Name of a Fish of the Mullet-kind. *Galen, de Aliment. Facultat. Lib. 3. Cap. 25*.

LEUCOCHRUS, λευκοχρους, according to *Gorræus*, is a sort of Wine, made of dried Raisins, first trodden, then macerated in Sea-water, and afterwards cast into white Must.

LEUCOGRAPHIS, λευκογραφίς, is the Name of a Stone, otherwise called *Maroxus* and *Galaxia*. It is found in *Egypt*, and being of a soft Texture, and easy to be dissolved, is used by the Whistlers, in bleaching their Linen. It is supposed to be of an emplastic Quality, and to be good for such as are troubled with Spitting of Blood, the Coeliac Passion, or Pains in the Bladder, being taken in Water; also for Women labouring under a Flooding, if taken as before, or applied in a Pessary. It is an Ingredient, also, in ophthalmic Medicines of a soft Composition, for it fills up the hollow Ulcers of the Eyes [*κοιλάματα*, see COELOMA] and represses Defluxions; and, made into a Cerate, it cicatrizes Ulcers in the tender Parts of the Body. *Dioscorides, Lib. 5. Cap. 152*.

LEUCOIUM.

The Characters are;

It has a long, flat, bicuspid Pod, which is full of smooth, flat, orbiculated Seeds, which are generally marginated, or bordered round the Edges; the Flowers are beautiful and sweet-scented.

Boerhaave mentions thirty-one Species of the Plant, none of which have any medicinal Virtues attributed to them at present, that I know of, except the first and twenty-second.

The first is the

Leucium; *incanum*; *majus*. C. B. P. 200. *Raii Hist.* 1. 779. *Boerb. Ind. A.* 217. *Tourn. Inst.* 220. *Leucium album*. Offic. Ger. 372. *Leucium simplex sativum*. Park. Theat. 258. *Leucium hyemale & diu durans album*. J. B. 2 874. STOCK-GILLY-FLOWER.

This is a Plant which grows almost in every Garden, and, therefore, is so well known, that it needs little to be said about it. It has long, narrow, hoary, or whitish Leaves, set alternately on the Stalks. The Flowers are large, of four Leaves a piece, sometimes white, sometimes red, and frequently striped, of a pleasant sweet Scent. The Seed is flat and round, growing in long hoary Pods, divided in two in the Middle, by a long Partition. It grows only in Gardens, and flowers a great Part of the Summer.

The Flowers are used, though very rarely. *Dioscorides* commends them for Ulcers, and Chaps in the Fundament, and Inflammations of the Matrix. *Galen* affirms, that they help the Infirmities of the Liver and Spleen, and provoke the Menfes, and hasten the Birth.

The twenty-second is the

Leuccium; *luteum*; *vulgare*. C. B. P. 202. *Tourn. Inst.* 221. *Boerb. Ind. A.* 2. 18. *Chyeri, Leucium luteum*. Offic. *Leucium luteum, vulgo Cheiri flore simplici*. J. B. 2. 872. *Raii Hist.* 1. 872. Synop. 3. 291. *Keiri, five Leucium vulgare luteum*. Park. Theat. 625. Parad. 256. *Viola lutea*. Ger. 371. Emac. 456. WALL-FLOWER.

Wall-flowers have a thick, woody, crooked Root, of a whitish Colour, from which spring many woody brittle Stalks, beset with small, oblong, sharp-pointed Leaves; and having on their Tops several pretty large yellow four-leaved Flowers, of a pleasant sweet Scent: They are followed by long slender Pods, or Seed-vessels, containing small, redish, flat Seed: It grows upon old Walls and Buildings, and flowers in April.

The Flowers, which are the only Part used, are cordial and cephalic, and strengthen the Nerves, help the Apoplexy and Palsy, cure the Green-sickness, and procure the Menfes.

Official Preparations are only the Oil, by Infusion of the Flowers, which is warming and comforting, and good for Pains in the Limbs. *Miller's Bot. Off.*

It is bitter, of a saltish herby Taste, and reddens the blue Paper pretty much. By the chymical Analysis, it yields, besides several acid Liquors, some concreted volatile Salt, and a good deal of Oil and Earth: Thus this Plant is filled with Sal Ammoniac, Sulphur, and terrestrial Parts.

The Flowers are principally used to provoke the Urine, and open the Bowels. The Infusion of them cures the Green-sickness, provokes the Menfes, and relieves the Palsy. The Oil of the Flowers, made by Infusion, is resolving, and good for the Rheumatism. *Martyn's Tournefort*.

The Flowers are of fine Parts, discus, exerge, are anodyne, expel the Fœtus and Secundines, on which Account they are reckoned, by *Galen*, 7 *Simpl.* among those Medicines which the Greeks call φθόρια [*Phthoria*, from φθόξ, a usual Word in *Hippocrates*, for Abortion], or such as destroy the Fœtus, and procure Abortion. Preparations in Use are a Conserve of the Flowers, a distilled Water, and the Oil of the Flowers by Infusion, which is a Preservative against the Apoplexy, gives Relief under the Palsy, and is an excellent Anodyne in Wounds.

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and Inflammations of the nervous Parts, and internal Distempers of the Uterus. A Bishop of *Trent* made use of a Conserve of the Flowers, taken in Water of the same, with very good Success, as a Preservative against the Apoplexy and Palsy. *Raii Hist. Plant.*

Of the Flowers is prepared a cephalic and cordial Syrup, which is more to be commended for its Smell than Virtues. The Wall-flower is recommended for provoking the Menfes and Lochia. In *Italy* they anoint the Region of the Pubes with the Oil of the Flowers, in order to facilitate the Birth. *Hist. Plant. ascript. Boerhaave*.

For provoking the Menfes, or expelling the dead Fœtus and Secundines, or for opening Obstructions of the Liver, even in an inveterate Jaundice, there is scarce a more effectual Remedy than the Flowers of Cheiri, taken twice every Day, in warm Beer. *Hoffman, de Præst. Remed. domestic.*

LEUCOIUM is, also, a Name for several Sorts of ALYSSOIDES, ALYSSUM, LUNARIA, THLASPIDIUM, and HESPERIS.

LEUCOIUM BULBOSUM. A Name for several Sorts of NARCISSO-LEUCOIUM.

LEUCOLACHANON, according to *Blancard*, is the wild Valerian.

LEUCOMA, λευκωμα, from λευκός, white. A Disorder of the Eye; the same as Albugo. See ALBUGO, and OCULUS.

LEUCONYMPHÆA.

The Characters are;

The End of the Pedicle opens into a large, herbaceous, tetraphyllous Calyx, which expands in form of a radiated Star. The Flower has twenty or more white large Petals, beautifully expanded like a Rose; within these are leaved great Numbers of petaloidal Stamina, furnished with incurvated Testiculi. The Ovary grows on a Placenta latent within the Calyx, and is divided into twenty Capsules, or Cells, by the like Number of perpendicular Interclosures, which Cells are stuffed with Multitudes of Seeds: This Ovary is, also, surrounded with twenty Tubes, in the Middle of which is an obtuse Apex. The rest of the Characters are those of the Nymphæa.

Boerhaave mentions two Species of this Plant; which are,

1. *Leuconymphæa*; *Nymphæa*; *alba major*. C. B. P. 193. *Tourn. Inst.* 260. *Boerb. Ind. A.* 281. *Nymphæa alba*. Offic. Ger. 672. Emac. 819. *Raii Hist.* 2. 1320. Synop. 3. 368. J. B. 3. 770. *Nymphæa alba major vulgaris*. Park. Theat. 1251. *Nenuphar*. Chab. 561. *Aguape Brasiliensis*. Marcgr. 21. *Aguape*. Pison. (1648.) 91. *Aguape five Nymphæa*. Ejusd. (1658.) 219. WHITE WATER-LILY.

The white Water-lily has many large, round, thick Leaves, lying on the Top of the Water; not at all indented about the Edges, standing on long thick Foot-stalks; they spring from a large white Root, sending forth many Fibres, and sticking fast in the Earth, at the Bottom of the Water. The Flowers grow, likewise, on long round Stalks, that arise immediately from the Root; they are large, in Shape like a Tulip before it opens, consisting of several Rows of Leaves, the outermost being greenish, but the rest of a pure white Colour, with yellow Stamina in the Middle; they are followed by large round Heads, full of broad, flat, shining Seed: It grows, in Rivers and large Lakes, and flowers in June. The Root and Flowers, and sometimes the Leaves, are used.

They are cooling and drying, and accounted good to stay all kinds of Fluxes and Loosenesses, the Gonorrhœa, and nocturnal Pollutions, by their softening cooling Qualities allaying the Acrimony of the Seed, and thereby rendering Persons less disposed to Venery. The Leaves are good to be applied to hot Tumors and Inflammations. *Miller's Bot. Off.*

The Root is a little glutinous, bitter, and gives a deep-red Tincture to the blue Paper.

By the chymical Analysis it yields a good deal of Acid, and very little concreted volatile Salt; so that it is no Wonder it should be sweetening. The Flowers are distilled; and a Syrup, and a Conserve, are made of them. The Roots are frequently used in the cooling Pitan, for the Heat of Urine, and Inflammation of the Kidneys, and other Bowels. The Syrup is a little narcotic; its Dose is an Ounce. *Martyn's Tournefort*.

Many are very cautious of using this Plant, for fear of extinguishing all amorous Desires, and rendering themselves impotent; for it is found by Experience, they say, that the Use of the Seed, and the Root, renders Persons very cold and dull as to Venereal Inclinations. *Pliny, Lib. 25. Cap. 7.* writes, that they who take it twelve Days successively, find themselves deprived both of the seminal Fluid, and the Power of Coition. The Root of *Leuconymphæa*, boiled in black Wine, and drank, stops the immoderate Flux of the Menfes, even when the Disorder has been regarded as desperate. *Trag.* The *Turks*, they say, macerate the Flowers in Water for a Night; and think that, if they rub their Nostrils with the same Water, or drink of it, they shall be preserved from many severe Distempers. We prepare a Conserve and Syrup of the white Flowers, which procure Sleep, but more slowly than the Poppy. *Simon Paul*.

The Water of *Nenuphar*, with Camphire, has been found effectual in an Excoriation of the Palate or Uvula, and Tongue.

from an hot adust Humour. *Ex Obs. Marc. Cumani a Velschio editis. Raii Hist. Plant.*

2. Leuconympha; minor. *Nymphaea alba, minor.* J. B. 3. 773.

LEUCOPHAGIUM. The Name of a sort of Aliment, said to be good in a Consumption. It is prepared of sweet Almonds macerated in Rose water, and the Flesh of a Capon, or of a Partridge, boiled, contused, and passed through a Sierce. *Castellus.*

LEUCOPHLEGMATICA, from λευκός, white, and φλέγμα, Phlegm. An universal, or partial, white stabby Tumor of the Body. See **HYDROPS**, and **FIBRA**.

LEUCOPHYLLON, λευκόφυλλον. The Name of a Composition described by *Aetius, Tetrab. 4. Serm. 4. C. 113.* and recommended as a good Application to the Neck and Arm-pits; I suppose, as a Perfume. It is compounded of one Pound of Earth of *Samar*, with *Syrax*, *Indian Leaf*, and *Opobalsmum*, of each two Ounce: Pound and work together the *Syrax* and *Opobalsmum*, and triturate and sift the Leaf; then mix them thoroughly together in the Mortar, and add thereto a sufficient Quantity of Juice of *Roses*; and so use it.

LEUCOPYRON, λευκόπυρον. The Name of a Malagma, *Galen, Lib. 1. Cap. 7. de Cony. M. per Gen.*

LEUCORRHOEA, from λευκός, white, and ῥέω, to flow. The Fluor Albus.

LEVIATHAN PENIS. The Penis of a Whale. It is recommended against the Fluor Albus, and Dysentery.

LEVIRATA. That Species of Thornback which is furnished with Prickles only on the Tail.

LEVISTICUM. A Name for the *Ligusticum*; *vulgate*; *foliis Apii*.

LEXIPHARMACON, λειψιφάρμακον, imports the same as **ANODINUS**. From λήγω, to cease, and φάρμακον, a Poison.

LEMPYRETOS, λειπυρέτιος, from λήγω, to cease, and πυρετός, a Fever. Februges, causing a Fever to cease.

LIBANOTIS, λιβανώτις. The Name of a Collyrium, in *Paulus Aegineta, Lib. 2. Cap. 22.* and *Lib. 7. Cap. 16.*

LIBANOTIS. The same as **LIBANOTOS**.

LIBANOTIS OFFIC. *Libanotis Ferula folio, semine anguloso.* C. B. P. 138. *Libanotis Cachryophorum quibusdam floribus luteis.* J. B. 3. 40. *Raii Hist. 1. 424.* *Libanotis Galeni Cachrys verior.* Ger. 858. (quoad descript.) *Emac. 1010.* *Libanotis Ferula folio, sive Cachryfera, sive Cachrys vera.* Park. Theat. 881. *Cachrys semine sulcato sulcato, plano majore, foliis Pencedani angustis.* Tourn. Init. 325. **FENNEL-HERB, FRANKINCENSE.**

It grows on the Mountains of *Italy* and *Sicily*, and flowers in *May*. The Root and Seed are used in Medicine. The Seed is called **CACHRY**, the Virtues of which see under that Word. As to the Root, I find nothing singular relating to its Use.

LIBANOTIS is also, a Name for several Sorts of **LASER-PISTUM**.

LIBANOTIS ALPESTRIS. A Name for the *Ferula*; *Alpestris*; *poli. Apoll. Mossiense.*

LIBANOTIS ALSATICA. A Name for the *Oreoselinum*; *Apii folio, p. 100.*

LIBANOTIS LATIFOLIA. A Name for the *Siler*; *foliis Aquilifolia.*

LIBANOTOS, λιβανώτις. Frankincense. See **THUS**.

LIBELLA. The Name of a Fish of the cetaceous kind, represented, by *Galen, Lib. 3. C. 31. de Aliment. Facultat.* as hard, unavoury, and mucous.

LIBDO. The Lich is sometimes thus called.

LIBOS, λιβός. Any thing instilled into the Eyes. *Galen's Excerpt.*

LIBRA. A Roman Weight, divided into twelve *Uncie*, or Ounces; in Imitation of which the later *Greeks* had their *Libra*, which they divided after the same manner: This appears from *Polibianus Metrus*, *Galen*, and others. The Value of the Roman *Libra* is determined from the Value of the **DENARIUS**; which see.

The *Libra Auri*, or *Pondo*, of the *Romans*, and *Mna* of the *Greeks*, when it is nummery, or put for a Sum of Money, always signifies an hundred *Drachmæ*. *Arbuthnot.* See **DRACHMA**.

The modern Pounds are various, in different Countries; but the common Apothecaries Pound is twelve Ounces. A Pound in Pharmacy is, likewise, a Measure for Liquids: and then it is understood to consist of sixteen Ounces. See **PONDUS**.

LIBURNUM. See **VIBURNUM**.

LIBYANON, λιβυανόν. An Epithet of several Collyria described by *Galen, Lib. 4. Cap. 7. de C. M. S. L.* And by *Aetius, Tetrab. 2. Serm. 3.* *Gorrieus* thinks *λιβυανόν*, in *Paulus Aegineta*, is wrote, by Mistake, for *λιβυανόν*.

LICHANOS, λιχανός, is the sore Finger.

LICHAS, λιχάς. A Measure of Length, equal to ten; the Breadth of fourteen Fingers.

LICHEN.

The Characters are;

It is of a thin, coriaceous, membranous, and sometimes of an horny sort of Contexture; sometimes it expands itself into

chartaceous ramous Lamellæ; sometimes shoots forth into round and smooth Branches. The seminal Vessels are very copious; they are of the Figure of a Sawcer, and filled with Plenty of dusty Seed. See a fuller Description of Lichen under the Article **BOTANY**, in the Explanation of botanic Terms.

Boerhaave mentions thirty-eight Species of this Plant; which are,

1. Lichen; *Dioscoridis & Plinii secundus*; colore cinereo. *Col. 1. 331.*

2. Lichen; *Dioscoridis & Plinii secundus*; colore viridante. *Col. 1. 331.*

3. Lichen; *Dioscoridis & Plinii secundus*; colore flavescente. *Col. 1. 331.*

4. Lichen; *Crustæ modo arboribus adnascens*; pullus. *Tourn. Inst. 548. Boerb. Ind. A. 16. Lichen arboreus pullus.* *Offic. Lichenoides crusta foliosa scutellata pullus.* *Raii Synop. 3. 72. Muscus crustæ, aut Lichenis modo arboribus adnascens.* *Ejusd. Synop. 1. 14. II. 23. Hist. 1. 16. TREE-LIVERWORT.*

This Lichen grows to Trees, and is used instead of the *Lichen*; *arboreus*; *sive Pulmonaria*; *arborea.*

5. Lichen; *Crustæ modo arboribus adnascens*; tenuiter diffus. *T. 548.*

6. Lichen; *Crustæ modo asseribus adnascens*; latior; mollior; vix vasculosus; cinereus.

7. Lichen; *Crustæ modo asseribus adnascens*; latior; mollior; vix vasculosus; roseus.

8. Lichen; *Crustæ modo asseribus adnascens*; latior; mollior; vix vasculosus; eleganter variegatus ex roseo, albo, nigrescente.

9. Lichen; *Crustæ modo faxis adnascens*; verrucosus; cinereus; & veluti exustus. *T. 549.*

10. Lichen; *maritimus.* *Boerb. Ind. A. 16. Lichen cinereus.* *Offic. Lichen cinereus terrestris.* *Raii Cat. Angl. 185. Hist. 1. 117. Synop. 3. 23. Lichen pulmonarius, saxatilis, rufescens, superne planus, inferne reticulatus.* *Tourn. Init. 549. Lichenoides peltatum terrestre cinereum majus foliis divisis.* *Raii Synop. 3. 76. GROUND LIVERWORT. Dale.*

This is a Plant consisting only of thick, crumpled, hollow Leaves, of an Ash-colour on the upper Side; but underneath, where it is fastened to the Earth by small Fibres, it is somewhat whiter. It bears no Flowers, nor perfect Seed; but is found upon dry barren Places all the Year long.

This Plant is but lately come into Request, being accounted a Specific against the Bite of a mad Dog, and other enraged Animals. For which Reason the College have now given a Powder, in which that is the principal Ingredient, under the Title of *Pulvis Antilyssus.* *Miller's Bot. Off.* See **HYDROPHOBIA**.

11. Lichen; *primus.* *Boerb. Ind. A. 17. Hepatica stellata.* *Offic. Hepatica terrestris.* *Ger. 1375. Emac. 1565. Item, Hepatica altera.* *Ger. ib. Hepatica stellata.* *Ger. Emac. ib. Item, Hepatica petraea.* *Ger. 1576. Emac. ib. Lichen, sive Hepatica fontana.* *J. B. 3. 758. Lichen petraeus latifolius, sive Hepatica fontana.* *C. B. 362. Lichen petraeus stellatus.* *Ejusd. Raii Hist. 1. 125. Synop. 40. Lichen, sive Hepatica vulgaris.* *Park. 1314. Lichen, seu Hepatica minor vulgaris.* *Ejusd. STAR LIVERWORT.*

It grows in moist and shady Places. The whole Plant is used, and agrees in Virtues with the *Lichen*; *petraeus*; *cauliculo pileolum sustinente.* This is more in Use among the common People than among the Physicians. *Dale.*

12. Lichen; *secundus.* *Lob. Ic. 2. 246.*

13. Lichen; *tertius.* *Lob. Ic. 2. 246.*

14. Lichen; *caulifer*; *petraeus*; *cauliculo calceato.* *M. H. 3. 623.*

15. Lichen; *Petraeus*; *cauliculo pileolum sustinente.* *C. B. P. 362. Dill. Cat. 210. Buxb. 185. Boerb. Ind. A. 17. Hepatica vulgaris Lichen.* *Offic. Lichen, sive Hepatica vulgaris.* *Raii Hist. 1. 124. Synop. 40. Lichen petraeus pileatus.* *Park. 1315. LIVERWORT.*

It grows in moist and shady Places, by the Banks of Rivers; and the entire Plant is in Use. This Herb is an extraordinary Hepatic, and is principally used in Obstructions of the Liver and Bladder, whose Signatures it bears in its Leaves; whence it becomes of Service in hectic Disorders, the Jaundice, the Itch, Lichen, Gonorrhœa, and Fevers; outwardly applied, it stops Hemorrhages in Wounds. *Schroder.*

Liverwort has an aqueous Taste, with something of Bitterness and Astringency. *Cesalpinus* observed it to be a gentle Purger of gross and adust Humours, if taken in great Quantities, for Instance, two Pints of the Decoction; by which Remedy, repeated for many Days together, he saw many cured of a malignant Scabies, and phagedenic Ulcers. But every Day there must be a fresh Decoction, in which Whey is to be principally used, because it soon loses its Virtue. *C. Hoffman* believes, that it has no more of a peculiar purgative Virtue belonging to it than Whey; but Whey itself, taken in large Quantities, is often cathartic. *Raii Hist. Plant.*

16. Lichen; *seu Hepatica lunulata, επιγυλλοκαρπός.* *D. Dale, Raii Synop. 41.*

17. Lichen;

17. Lichen; verrucosus. *D. Doody, Raii Synop.* 41.
 18. Lichen; qui Musco-fungus; terrestris; minor; crispus; foliis supernè è flavo-virescentibus, infernè albicantibus. *M. H.* 3. 632. *Seft.* 15. *T.* 7. 3.
 19. Lichen; qui Musco-fungus; terrestris; minor; fuscus; foliis è latitudine crenatis; Musco-innascens. *M. H.* 3. 632. *Seft.* 15. *T.* 7. 4.
 20. Lichen; qui Musco-fungus; Lichenoides; arborum; Hi-bernicus; scutellatus. *M. H.* 3. 633. *Seft.* 15. *T.* 7. 3.
 21. Lichen; qui Musco-fungus; arboreus; cinereus; scutel-latus; marginibus pilosis. *M. H.* 3. 634. *Seft.* 15. *T.* 7. 6.
 22. Lichen; arboreus; five Pulmonaria arborea. *J. B.* 3. 759. *Tourn. Inst.* 549. *Boerb. Ind. A.* 17. *Muscus Pulmonarius.* *Offic.* C. B. 361. *Muscus arboreus pulmonarius.* *Raii Hist.* 1. 116. *Synop.* 22. *Muscus pulmonarius five Lichen arborum.* *Park.* 1313. *Lichen arborum.* *Ger.* 1377. *Emac.* 1566. *Lichen arboreus five Impetigo morbus, & Mentagra quedam, atque Pulmonaria arborea fungosa.* *Aldrov. Dendr.* 176. *Lichenoides peltatum arboreum maximum platyphyllum.* *Raii Synop.* 3. 76. TREE LUNGWORT, OAK-LUNGS.

This Moss, or Lichen, is made up of flat, wrinkled, rough Leaves, greenish above, and ash-coloured underneath, having several round, reddish-brown Spots on the Superficies, in which the Seed is supposed to lie. It is of a bitterish restraining Taste.

It is accounted drying and binding, good to stop inward Bleeding, and the too great Flux of the Menfes: The common People make great Use of this Lung-wort, esteeming it to be good for the Lungs, to help Coughs, Consumptions, and other Disorders of the Breast, boiling it in Pectoral Drinks, and making Syrup of it. It is commended in the *German Ephemerides, Anno* 3. *Obs.* 290. as an extraordinary Remedy against the yellow Jaundice. *Miller's Bot. Off.*

It grows to Trees, especially the Oak; and is said to heal recent Wounds.

23. Lichen; arboreus; varius magnitudine, ramis, foliis, colore; ex variis arboribus lectus Hyeme seivissima.
 24. Lichen; cinereus; cornua damæ referens. *T.* 549.
 25. Lichen; latifolius; ramosus; minor; hirsutus. *T.* 551. 325.
 26. Lichen; qui Musco-fungus; arboreus; angustior; scutellatus; & peltatus. *M. H.* 3. 634. *Seft.* 15. *T.* 7. 3.
 27. Lichen; pulmonarius; cinereus; mollior; in amplas laciniis divisus. *T.* 549. 325.
 28. Lichen; cinereus; latifolius; ramosus. *T.* 550.
 29. Lichen; cinereus; arboreus; marginibus fimbriatis. *T.* 550.
 30. Lichen; pyxidatus; major. *Tourn. Inst.* 549. *Boerb. Ind. A.* 18. *Muscus pyxidatus.* *Offic. Ger.* 1371. *Emac.* 1560. *Park.* 1308. *J. B.* 3. 767. *Raii Hist.* 1. 113. *Muscus pyxoides.* C. B. 361. *Lichenoides tubulosum pyxidatum cinereum.* *Raii Synop.* 3. 69. CUP MOSS.

This Moss, or Lichen, has many hoary whitish-green small Leaves, spread on the Surface of the Earth; among which arise little, whitish, dusky, hollow Cups, a quarter of an Inch high, shewing neither Flower nor Seed; they grow upon dry barren Ground, and hilly Banks.

This Moss is reckoned a Specific against the Whooping or Chincough in Children, being given them in a Decoction sweeten'd with Sugar, or some pectoral Syrup.

31. Lichen; pyxidatus; minor. *T.* 549.
 32. Lichen; pyxidatus; minimus.
 33. Lichen; pyxidatus; teres; acetabulis minoribus, repandis. *T.* 549.
 34. Lichen; pyxidatus; non ramosus; acetabulis fimbriatis. *T.* 549.
 35. Lichen; pyxidatus; prolifer. *T.* 549.
 36. Lichen; pyxidatus; prolifer; acetabulorum; fimbriis tumetibus, coccineis.
 37. Lichen; pyxidatus; acetabulorum oris fuscis & tumetibus. *T.* 549.
 38. Lichen; pyxidatus; acetabulorum oris nigerrimis & tumetibus. *Boerb. Ind. alt. Plant. Vol.* 1.

All the Plants under the Name of *Lichen*, are endued with an heating, strengthening, and somewhat astringent Virtue: Hence, where Corroboratives are required, these are usually prescribed: They are effectual, also, in Hæmorrhages; and are said to be a very good Remedy for the Asthma, and an inveterate Cough. *Hist. Plant. ascript. Boerhaave.*

LICHEN, in Physiology, is a sort of Leprosy.

LICHEN, also, signifies certain callous Substances, or Warts, which grow on the Legs of Horses. See EQUUS.

LICHEN MARINUS. A Name for the *Opuntoides marina*; quæ *Corallina latifolia*; & *Opuntia marina*.

LICHENASTRUM. See the Explication of Botanical Terms under the Article BOTANY.

LICHENOIDES. See the Explication of Botanical Terms under the Article BOTANY.

LICHI, LICI, or LUMYEN. The same as LETCHI.

LICINIA. Tents.

LIEN.

The Spleen is a bluish Mass, something inclined to red, and of a long oval Figure, being about seven or eight Fingers-breadth

in Length, and four or five in Breadth. It of a softish Substance, and is situated in the Left Hypochondrium, between the great Extremity of the Stomach, and the neighbouring false Ribs, under the Edge of the Diaphragm, and above the Left Kidney.

It may be naturally divided into Sides, Edges, and Extremities. Its Sides are two; one external and somewhat convex; the other internal, and irregularly concave. It has two Extremities; one posterior, which is pretty large; and one anterior, which is smaller, and more depressed; two Edges, one superior, and one inferior; on both which there are, in some Subjects, several Inequalities.

The inner or concave Side is divided by a longitudinal Groove, or Scissure, into two Planes, or half Sides, one upper, the other lower; and by this Groove the Vessels or Nerves enter in human Subjects. The superior half Side is broader, and more concave, than the inferior, being proportioned to the Convexity of the great Extremity of the Stomach. The inferior half Side lies backward on the Left Kidney, and forward on the Colon; and sometimes this Side of the Spleen appears to have two superficial Cavities, one answering to the Convexity of the Stomach, the other to that of the Colon. The convex Side of the Spleen is turned towards the Left Ribs.

It is connected to the Stomach by the Vessels called Vasa Brevia, to the Extremity of the Pancreas by Ramifications of the splenic Artery and Vein, and to the Omentum by Ramifications, which the same Artery and Vein send to the Spleen, and which run in the longitudinal Groove.

It is connected to the Edge of the Diaphragm, by a particular membranous Ligament of different Breadths in different Subjects, fixed in its convex Side, sometimes near the upper Edge, and sometimes near the lower. This Ligament is situated transversely with respect to the whole Body, and longitudinally with respect to the Size of the Spleen. In some Subjects it is connected by other Ligaments to the Stomach and Colon, but in all this there are considerable Varieties.

The Figure of the Spleen is not always regular, and is as various as the Size. Sometimes it has considerable Scissures both in the Sides and Edges, and sometimes it has Appendices. I have sometimes found a kind of small distinct Spleens, more or less round, and connected separately to the Omentum, at some Distance from the anterior Extremity of the ordinary Spleen.

The Structure of the Spleen is not easy to be unfolded in Man, and is very different from that of the Spleens of Brutes, upon which both public and private Lectures are commonly read.

Its Coverings adhere to it so closely in Man, that it is difficult to distinguish the common from the proper Coat; whereas in some Brutes, such as Oxen and Sheep, nothing is more easy; for in such Animals we find two Coats separated by a cellular Substance. This Covering seems to be no otherwise a Continuation of the Peritonæum, than by the Intervention of the Omentum and Mesocolon; and even in Man the two Coats may be distinguished, where the Vessels enter by the longitudinal Scissure. In Man, the Substance of the Spleen is almost wholly vascular, that is, composed of the Ramifications of all kinds of Vessels. In Oxen, the Substance of the Spleen is chiefly reticular, and in Sheep it is cellular. In Oxen and Sheep, there are no venous Ramifications; but instead of them, only open Sinuses, disposed like Branches, except a small Portion of a venous Trunk perforated on all Sides, at the Extremity of the Spleen.

In the human Spleen we see something like glandular Corpuscles, as in those of other Animals; and there are numerous venous Ramifications through its whole Extent. Between these Ramifications we every-where observe an Appearance of extravasated Blood, lying in a kind of filamentary, transparent, and very delicate Substance expanded through the whole Spleen.

This filamentary Substance having surrounded all the Ramifications, terminates in almost imperceptible Cells, which communicate with each other, so that if we blow through a small Hole made in the membranous Covering, the whole Spleen will immediately be inflated.

The Surface of the Spleen of Oxen and Calves is visibly full of a great Number of lymphatic Vessels, which may, at any time, be easily demonstrated; but in Man it is a very difficult Matter either to discover or demonstrate them.

The Spleen Artery, which is one of the principal Branches of the Cœliaca, runs along the lower Side of the Pancreas, and passes from thence in a winding Course to the Spleen. The splenic Vein, which is larger than the Artery, is but little inflected in this Part of its Course.

This Artery and Vein having got beyond the Extremity of the Pancreas, send out several Rami together, which immediately afterwards divaricate in the same Plane, run in the membranous Duplication of the neighbouring Portion of the Omentum, and, lastly, intersect each other in their common Plane, all the Way to the Scissure of the inner or concave Side of the Spleen.

These arterial and venous Rami enter the Substance of the Spleen together by the same Scissure; being accompanied by the cellular Substance, belonging to the membranous Duplication of the Omentum. We may likewise observe, that, at this Place, the Coat

Coat of the Spleen sends, from its concave Side, a Portion of a Lamina, which is incurvated in the Scissure, and penetrates into the Substance of the Spleen.

The Nerves of the Spleen are very numerous, and come from the Plexus splenicus already described. These Nerves send out, at different Distances round, all the arterial Ramifications of the Substance of the Spleen, a great Number of Filaments, in form of an irregular Net-work.

The Arteries, Veins, and Nerves, having entered the Spleen, are there divided and subdivided into a great Number of Ramifications, and accompany each other to the very last Extremities of their Division. They are contained in a kind of common cellular Capsula or Vagina, which first surrounds all the three, and then sends off particular Septa between them. This Capsula seems to be formed by a Continuation of the cellular Substance of the Omentum, and of that particular Lamina of the Coat of the Spleen above-mentioned.

The capillary Extremities of all these vascular Ramifications, both arterial and venous, end in the filamentary Cells already mentioned. *Mulpighi* considered them as distinct Capsulae or Folliculi, containing the same Number of small Glands. They all communicate together, so that where-ever we pierce the Coat of the Spleen, we may, through that Hole, inflate the whole Viscus.

In Oxen and Sheep there are no venous Ramifications, as I have said. The Vena Splenica having entered the great Extremity of these Spleens, runs, first of all, for about half an Inch, or an Inch, and afterwards, instead of an ordinary Vein, we find a Canal perforated on all Sides. The Beginning of this Canal has still some Remains of the Coats of a Vein; but the Form of it is soon lost, and then we find nothing but Sinuses or Sulci in the reticular Substance in Oxen, and in the cellular Substance in Sheep.

The Splenic Artery and Nerves are there ramified in a particular Vagina, as in Men; and the Extremities of these particular Ramifications seem to swim or float in the Cells, and to fill their filamentary Substance with Blood. At the Ends of several of these Capillaries, I have observed small Corpuscles disposed like Branche of Grapes; and I have seen two small Tubes going out from each Corpuscle, one long and open, the other small and short, which was lost in the Sides of the Spleen.

I imagine, that the long Tube, the Extremity of which I was not able to find, may be the Origin of a lymphatic Vessel, especially because these Vessels are so very numerous and visible in an Ox's Spleen, as has been already said. These small Corpuscles may easily be discovered in an Ox's Spleen, when boiled by a particular Method. They are, indeed, much larger before than after boiling, but they are not so solid, and subside more easily when cut. The same sort of Corpuscles may be discover'd in the human Spleen, but they are so extremely small as not to be visible without a Microscope.

For the Uses of the Spleen, see *HEPAR. Winslow's Anatomy.*

DISORDERS OF THE SPLEEN.

When the Spleen is affected, the Part swells, together with the Left adjacent Region, which becomes hard, and renitent to the Touch; there is a Tenseness, also, of the Belly, and somewhat of a Tumor of the Legs. Ulcers are either incurable, or, at least very difficult to be healed; the Patient cannot walk fast, or run, without a Pain, and some Difficulty.

This Disease is increased by Rest, and, therefore, Labour and Exercise are necessary, due Care being taken, that their Excess does not excite a Fever; Unctions, Frictions, and Sweating are, also, necessary. All sweet things are hurtful, and so are Milk, and Cheese, but Acids are extremely proper. It will be convenient, therefore, to drink strong Vinegar by itself, or what is better, impregnated with Squills: Salt Meats are, also, to be eaten, and Olives harden'd in Pickle. Lettuces dipt in Vinegar, or Endive, and Beets, in the same, together with Mustard, wild Radish, and Parsnip, are proper vegetable Diet; and for Flesh-meats, the Hoofs and Noses of Beasts, lean Birds, with whatever Hunting supplies of the same Kind, are to be chosen. Formulations to be used are, in the Morning, fasting, a Decoction of Wormwood, after Food, Water from the Smith's Forge, in which red-hot Iron has been quenched, which is of principal Efficacy for repressing the Spleen, as is observed from the small Spleens of those Animals which are bred by the Smiths. Thin, austere Wine may be drank, and, in general, all Meats and Drinks, which have a Virtue of provoking Urine, are to be used, some of the principal of which are the Seed of Trefoil, Cumin, Apium, wild Thyme, Cytisus, Thyme, Hyssop, and Savory; for these Simples seem best qualify'd for expelling the Humor. The Spleen of an Ox is proper to be eaten, and, among Herbs, Rockets and Cresses, which have a peculiar Virtue of extenuating the Spleen.

Outward Applications, for alleviating the Disorder, are the *Glaudes Unguentariae*, which the Greeks call *μυροβλάτειοι*, or an Epithem may be prepared of Linseed, and the Seeds of Nasturtium, mixed with Oil and Wine; or of green Cypress and Ca-

rica; or of Mustard, with an Addition of the Fat of a Male Goat's Kidneys, to the Weight of a fourth Part, bruised together in the Sun, and immediately applied. Capers may be many ways adapted to this Disorder, for they may be conveniently taken, or their Pickle may be drank with Vinegar; or for outward Application, the bruised Root, or its Bark, or the Capers themselves bruised with Honey, may be used. Malagmas, also, are adapted to this Purpose. *Celsus, Lib. 4. Cap. 9.*

WOUNDS OF THE SPLEEN.

When the Spleen is wounded, there is an Eruption of black Blood from the Left Side; the Hypochondria, with the Stomach on the same Side, become hard; the Patient is seized with a great Thirst, and a Pain reaching to the Clavicle, as in Wounds of the Liver. *Celsus, Lib. 5. Cap. 26.* See *VULNUS.*

INFLAMMATION OF THE SPLEEN.

An Inflammation of the Spleen, which, indeed, but rarely happens, is attended with an hard and throbbing Tumor, a Pain of the Left Hypochondrium, and a continual and violent Fever. There is, also, an extreme Heat and Thirst, and the Tongue is covered with a blackish Mucus; there is an utter Loss of Appetite, with a difficult, and, as it were, imperfect Respiration, like that of Children, when they fall a sobbing through Anger. If the Part be affected with an Abscess, or an Ulcer, it may be discovered by much the same Symptoms, as when the Liver is thus affected. *Lomm. Med. Obs.*

LARGE SPLEENS.

They who have large Spleens are affected with a Putrefaction of the Gums, and fetid Breath; but a large Spleen, not attended with a fetid Breath, nor an Haemorrhage, subjects the Patient to malignant Ulcers, and black Cicatrices, in the Legs. But if there be, also, a manifest Abscess in the Face, with a grave or deep Tone of Voice, or a Pain of the Teeth, we must expect an Haemorrhage from the Nose. They who have the Parts under their Eyes very much elevated, are found to have great Spleens, and if they are besides affected with Swellings in the Feet, a Dropsy is to be suspected; but we are to examine, also, the Belly and Loins. *Hippocr. Prædict. Lib. 2. p. 111.*

The principal Action of the Spleen seems to be,

1. That the pure arterial Blood, abounding with Lymph, may, in the most minute Glands, prepare a highly subtle Lymph, secrete it, and through proper Excretories discharge it into the Cellulae of the Spleen, and, perhaps, partly, also, into the splenic Vein.

2. The Spleen seems to return the Blood, remaining after this Action, by minute Veins, which convey it to the common splenic Vein.

3. The Number of small Arteries which line the Sides of these Cellulae, perhaps, discharge a Blood attenuated by their arterial Structure, and full of Lymph, into the open Cavities of these Cellulae, as is observed to happen in the Cellulae of the human Penis.

4. The nervous Fluid is thought to be copiously and perpetually convey'd to this Organ, to be there deposited, and mixed with the Blood.

5. 'Tis probable, that all these Humours, thus prepared, blended and becoming stagnant for a Moment, are compress'd, mix'd, and attenuated, as in the Lungs, by the Force of the arterial Blood, by the Imperus of the nervous Fluid, by the Contraction of the two proper Membranes, and the Vagina of the Spleen, by the Constriction of the Fibres, which, in this Part, are very numerous, and by the Agitation of the Diaphragm, and abdominal Muscles, Vessels and Viscera.

By these Causes, the Blood is in the Spleen fluid, dissolved, full of Spirits, abounding with Lymph, with Difficulty form'd into Concretions, intimately mix'd, not easily separated into heterogeneous Parts, and of a purple or redish Colour: Such is the Blood convey'd from the Spleen, thro' the large splenic Vein.

This, therefore, is the Effect of the Spleen; for which Reason it has not, like the other Viscera, an Emissary for discharging the particular Humor generated in its Fabric, but discharges all, mix'd together.

'Tis highly obvious, that the Effects of this Action are produced in the Spleen, tho' they are by no means subservient to it. But since all the Humours, thus prepared, are convey'd into the Vena Porta and Liver, 'tis obvious, that the Spleen must be subservient to the Liver, and consequently, that its Use cannot be explained till the Effects and Office of the Liver are previously known. See *BILIS* and *HEPAR.*

It is remarkable that an Animal, whose Spleen is cut out, destroy'd, or greatly obstructed, is much more salacious than usual for some time; and makes Water much more frequently; because the Blood conveyed otherwise to the Spleen, is then carried to the Organs of Generation and Kidneys. It is farther observable, that such an Animal is more voracious; and, in Mankind, very subject to violent Fits of Laughter. The first Circumstance is occasion'd by a greater Afflux of Blood and Spirits to the

the Stomach; the second, by a greater Quantity of Spirits derived to the Diaphragm, by the Phrenic Nerves.

LIENTERIA.

This is a Disorder proceeding from a preternatural Smoothness of the Intestines, in consequence of which what is discharged by Stool, greatly resembles the Aliments, both in Colour and Substance. The Cause of it, according to *Fernelius*, is not an obstructed or hinder'd Distribution of the Aliments, but a Weakness of the first Concoction, in consequence of which the Aliments pass thro' the Intestines unchanged.

Bontius, in his *Treatise de Medicina Indorum*, L. 3. Cap. 12. tells us, that in the *Indies* this Disorder often consumes the Patient without any manifest Cause, without any Fever, or at least with a very slow one, and without any violent Sense of Pain, since a kind of Weight is only perceived about the Navel and Hypochondria. This Disorder, says the same Author, besides the Obstruction of the Viscera, has, also, another latent Cause in the Meseric Veins, or in the Substance of the Mesentery itself; in which large Abscesses often happen, as I myself have often seen, in dissecting the Carcasses of those who have died of this Disorder. Nay, says he, I have often found the whole Mesentery consumed, whilst the Intestines cohered, or rather were con-founded, in an irregular Manner, with each other, by means of slender membranaceous Pellicules. 'Tis, also, observable, says he, that a Lientery is generally accompanied with a Bulimy or Fames canina; for which Reason the Aliments are discharged by Stool, little, or not at all, changed or concocted.

Franciscus Sylvius, in his *Praxis*, Lib. 1. Cap. 16. tells us, that the Chyle, secreted from the Faeces by the peristaltic Motion of the Intestines, is not only propel'd downwards, but, also, by the same Force, express'd and strained thro' their fleshy and spongy Crust, into the lacteal Vessels. This Percolation of the Chyle is injur'd, and more or less obstructed or diminished in a Discharge of chylous Excrements, or a Lientery; first, when the Orifices of the lacteal Vessels are block'd up, or obstructed, by a pituitous or viscid Humour; or, secondly, when here and there the fleshy Crust of the Intestines is abraded, and the subjacent Part of the Intestine covered with a Cicatrix; by which means the Pores conveying the Chyle to the lacteal Vessels are clos'd up, as sometimes happens after violent Dysenteries, especially those affecting the small Intestines, as I have often observed in dissecting the Bodies of those who died of this Disorder. A Lientery is generally succeeded by a kind of remarkable Leanness, or Extenuation of the whole Body, which continues to the End of the Patient's Life, and from which the most corpulent are not exempted.

Fernelius, in his *Pathologia*, Lib. 6. Cap. 10. tells us, that a Lientery is produced by a Consent of other Parts affecting the Stomach. Thus Phlegm discharged from the Brain, because it is of a refrigerating and softening Nature, and Bile discharged from the Liver, and irritating the Stomach, may precipitate the Aliments as yet crude and insufficiently concocted, into the Intestines. Thus, also, says that Author, I have frequently observed a violent Lientery, like that which happens in those who, by a long Disorder, are brought near to Death, produced by large Abscesses of the Abdomen, a Vomica of the Lungs, and a Suppuration of the Breast and Kidneys, with a Diffusion of a fetid and malignant Nidor into the Heart and Stomach.

Lommius, in his *Medicinal Observat.* tells us, that that Species of Flux is not without Danger, in which, as in a Diarrhoea, concocted Humours are not discharged, but rather the Aliments and Drinks taken, evacuated without Pain, crude, unequal, and so soon as scarcely to lose any thing of their original Form; since they have no Admixture either of Blood or Bile. The *Greeks* call this Disorder *λιαντεία*, the *Latins* *Lentitas Intestinalis*, and we a Lientery. In this Disease the Patient reaps no Advantage from his Aliments, and falls into a bad Habit of Body. The whole Hypochondria are preternaturally hot, and the Patient labours under a violent Loathing of Aliments. A Lientery sometimes proceeds slowly, and sometimes quickly. It is more easily removed from young, than from old Persons, especially if a copious Discharge of Urine is excited, and the Body begins to be nourished by the Aliments. But it is with the greatest Difficulty removed from old Patients, especially when it succeeds long-protracted Gripes. In a Lientery the Danger is still greater, if the Patient goes to Stool so often, both in the Day and Night, as to be incapable of sleeping on that Account. Besides, if the Matter discharged is entirely crude, or black, or smooth and fetid like Ox's Dung; if the Appetite is lost, and the Desire of Drinking augmented; if the Discharge of the Patient's Urine is not proportioned to the Quantity of the Liquor drank; if his Mouth is exulcerated; if his Face is red, and diversified with Spots of a great Variety of Colours; and if his Abdomen is soft, sordid, and corrugated, certain Death is not far off, if the Patient is old, and has labour'd under the Disorder for a considerable Time. In a long-protracted Lientery, acid Eructations happening, are accounted a good Sign; and there are some Hopes of the Patient's Recovery to be entertained, when the Discharge of the Urine begins to correspond to the Quantity of the Liquor drank; and the Body to be nourished, whilst, at the same time, the Patient

is without a Fever, and free from Spots. As in all Fluxes, so also in a Lientery, the Disorder is thought to be at an End, when there is no longer any Rumbling of the Intestines, and when the Stools are succeeded by a kind of Discharge of Flatulences. The Patient, who, being for a long time afflicted with a Lientery, discharges certain Animals by Stool, with violent Gripes and Pains, becomes tumid, when these cease. If, in a Lientery, a Pain of the Side, and a Difficulty of Breathing, come on, a subsequent Consumption is to be dreaded. This Disorder is often epidemical in a corrupted State of the Atmosphere, and frequently cuts off those who are spent by long Sickness. A Lientery, also, sometimes succeeds a Vomica of the Lungs, an Abscess of the Abdomen, or a Suppuration of the Breast or Kidneys, in which Cases it never fails to prove mortal.

According to *Etmuller*, the principal Intention of Cure in a Lientery is to strengthen and corroborate the Stomach, which End is most effectually obtained by Rhubarb, Preparations of Coral and Quinces. All the Medicines recommended against Vomiting are, also, proper in this Disorder. *Waldschmidtus* informs us, that the most simple and easily prepared Stomachics are more beneficial in a Lientery, than those of the compound Kind. The most proper Stomachics are, according to that Author, preserv'd Nutmeg, preserv'd Ginger, the White of an Egg boiled with Vinegar, and Wormwood-wine prepar'd with Maltich. See COELIACA PASSIO.

LIGAMENTUM.

A Ligament is a white, fibrous, close, compact Substance, more flexible than a Cartilage, not easily ruptured or torn, and which does not yield, or at least very little, when pull'd.

It is made up of very small, and very strong fibres, which, by their different Texture and Disposition, form narrow Cords, broad Bands, or thin Webs; and these serve to bind, contain, limit, and defend the other Parts, both hard and soft.

Of the Ligaments which belong to the Bones and Cartilages alone, we may establish two general Classes; the first containing those Ligaments which are of Use only to the Bones in which they are inserted; the other containing those which serve for other Parts, besides the Bones in which they are fixed, and principally for the Muscles. If we have regard to the Bones only, these last are improperly termed Ligaments, as not doing the Office of such, and, consequently, resembling the true Ligaments only in Texture.

Of those Ligaments which are fixed in Bones or Cartilages alone, and are not employ'd about the other Parts; some belong wholly to the Articulations or moveable Bones; and others have nothing to do with the Articulations.

The Ligaments, which belong particularly to the moveable Articulations, and may therefore be called articular Ligaments, are of several Kinds.

Some are designed only to fix and strengthen the Joints, and to secure the Bones, in their different Motions, from parting from each other, as it happens in Luxations. These Ligaments are like Ropes, more or less flat; or like Bands, sometimes narrow, and sometimes of a considerable Breadth: And tho' some of them are thin, they are all very strong, and yield but little. The Ligaments of the Articulations by Ginglymus, and those which tie the Bodies of the Vertebrae together, are of this Kind.

Some contain a very fluid mucilaginous Liquor, commonly called Synovia, which continually moistens the Articulations. These are not so properly Ligaments as Ligamentary Webs, bound immediately round the Articulations, and fixed to the Extremities of the articulated Bones, and thus forming Capsule or Bags to contain that Liquor, and hinder it from running out.

These may very well be named capsular Ligaments. They lie within the former Sort, being closely united to their internal Surface, and are to be met with in all the moveable Joints, as in that of the Ulna with the Os Hum. ri, and those of the Bones of the Carpus with each other. But they are more like Membranes, than Ligaments properly so called.

Some perform both the former Offices, that of a Band to keep the Bones together, and of a Capsula to hold the Mucilage. These surround the orbicular Articulations, as that of the Os Humeri with the Scapula, and of the Os Femoris with the Os Innominatum.

All the Parts of these Ligaments are not of equal Thickness, so that they appear to be made up of two kinds of Ligaments, inseparably united or glew'd together; one capsular, which surrounds the whole Articulation; and several true Ligaments, extended at different Distances over the other, and closely united to it. The Name of orbicular Ligaments is not general enough, because it does not agree to the Bones of the Tarlus, Carpus, and others.

I do not think it proper to rank among these the membranous Vagina, belonging to the Chancel or Groove in the upper Part of the Os Humeri.

Some are hid by the Joints themselves, and by the capsular Ligaments, as that belonging to the Head of the Os Femoris, called improperly Ligamentum Tereti, and the crucial Ligaments of the Tibia.

L I G

The Ligaments, which serve to connect Cartilages with Bones, might be reckoned another Species of articular Ligaments; and of these some are proper, as those belonging to the femilunar Cartilages of the Knee, and to the cartilaginous Trochlea of the Orbit. Others are common, as all those to which the inter-articular Cartilages are fastened by their Circumferences.

The other Ligaments of the first Class, or those fixed to Bones, without any Relation to the Articulations, are of two kinds.

Some of them are loose, and serve only to set Bounds to the Motions of Bones; such as those that tie the Clavicles to the coracoide Apophyses; those that go from one Clavicle to the other; and those between the spinal Apophyses of the Vertebrae.

Some of them are tight, and stretched either between the Parts of the same Bone, as the Ligaments between the Acromium and coracoide Apophysis, or between several Bones united together without Motion, as those that are fixed by one Extremity to the Os Sacrum, and by the other to the Os Ilium.

The Ligaments of the second general Class, or those which, being fixed to Bones or Cartilages, are, likewise, of Use to other Parts, are two Kinds. Some of them are fixed to Bones or Cartilages only; and some are, likewise, fixed to other Parts, or other Parts are fixed to them.

Those of the first Kind serve principally to inclose, check, limit, and strengthen the Muscles and Tendons, and sometimes to change their Directions.

The annular Ligaments are of this Kind, and they antiently had their Name, not so much from their Figure as from their Use, which is much the same with that of the Rings through which the Reins of Horses pass; for it is after the same manner that these Ligaments bridle the Tendons of many Muscles, and thus hinder them from starting from their Places, in violent Motions; and, in some Circumstances, change their Directions.

The annular Ligaments are either particular and simple, or common, and made up of several single ones; as we shall see in those of the Carpus and Thumb: Some of them are like Vaginae, or Sheaths; as those on the internal and flat Side of the first and second Phalanges of the Fingers.

Some of them are only semi-annular; as that of the superciliary Notch of the Orbit, when there is a Ligament there; and that of the Notch of the superior Costa of the Scapula.

To these might be referred the Ligaments between the Acromium and coracoide Apophysis of the Scapula, and between the Os Sacrum and Os Ilium, which have been already mentioned in the first Class.

Those of the other Kind, which come under this second Class, comprehend the Ligaments fixed to other Parts, as well as to the Bones; and these again are of two Sorts.

Some of them are fixed to one or more Bones, with different Degrees of Tension; and serve on each Side for the Insertion of Muscles, supplying, in that respect, the Place of Bones.

Of this Kind are the interosseous Ligaments of the fore Arm and Leg, the Oblurator Ligament, the Ligament extended on each Side of the Os Humeri, from the Neck to the Condyles, the posterior and lateral Ligaments of the Neck, and the ligamentary Membranes of the posterior Foramina of the Os Sacrum.

To these may be added, the Ligaments commonly termed Aponeuroses; such as those of the Temples, Scapula, Os Humeri, Ulna, Palm of the Hand, Thigh, Leg, and Sole of the Foot: All these may, in general, be termed Aponeurotic Ligaments, Ligamentary Aponeuroses, Ligamentary Septa, or Ligamentary Vaginae: But they ought to be carefully distinguished from the Aponeuroses of the Muscles and Tendons. The Ligamentum Suspensorium of the Musculus Styloglossus belongs to this Place.

Other Differences of Ligaments may be deduced from their Consistence, Solidity, Thickness, Situation, and Figure: Some Ligaments are almost cartilaginous; as those which surround the Head of the Radius, and the small Head of the Ulna, a Portion of the orbicular Ligament of the Head of the Os Femoris, and the annular Vaginae of the Fingers.

Some of them have a particular Elasticity, by which they are capable of being drawn out by a sufficient Force, and of contracting again, when left to themselves. This Elasticity differs from that of Cartilages; which last is hardly perceivable, but by compressing or bending them to a certain Degree. It differs likewise from that of the other Ligaments, in that it is not only very considerable in living Bodies, but remains such after Death.

Of this Kind are the Supercilium of the Cotyloide Quality, the Ligaments which tie the Os Hyoides to the Styloide Apophyses, the posterior Cervical Ligament; the Ligaments which connect the sharp Edges of the spinal Processes of the Vertebrae to one another, and those seated at the Bases of these Apophyses, next the great Canal of the Vertebrae, especially in those of the Loins. Winslow's Anatomy.

LIGATIO. A Bandage or Ligature, or the Stiffness of a Joint; see ANCYLE: Or it imports an Impotence, whimsically supposed to be induced by Magic.

L I G

LIGATURA. The same as LIGATIO.

LIGNIPERDA. An aquatic Insect, found inclosed in a Straw, or some such Substance. The Fishermen esteem it as a good Bait for a Trout. It is recommended as an Amulet for a Quartan, if hung about the Neck, by the Superstitious.

LIGNUM { ALOES } See { AGALLOCHUM. }
 { AQUILÆ }
 { ASPALATHUM }

LIGNUM CAMPESCANUM. Offic. *Lignum Campechianum*, Species quædam Brasil. Sloan. Hist. 2. 183. Raii Dendr. 132. *Lignum Brasilis simile cæruleo tingens*. J. B. 1. 492. Jonst. Dendr. 458. *Ligno Brasiliano simile*. C. B. P. 393. *Tsiam pangam*. Hort. Mal. 6. 3. Tab. 2. *Paraghi*, *Paranghi*, *Atacia Zeylanica major tinctoria Panfapan*. Herm. Mus. Zeyl. 42. *Lignum Japan vulgo*. An *Faravanda*. Pisan. 11? LOG-WOOD.

It grows in the East and West-Indies; and the Wood is used in Dying, but rarely in Medicine. Dale.

It is esteem'd astringent, and good to fortify the Stomach.

Its Leaves are cephalic and stomachic, and good to resist the Malignity of the Humours.

The Fruit fortifies the Brain and Stomach; it helps Digestion, promotes the Transpiration of Humours, and dispels Wind. Lemery des Drogues.

LIGNUM CARABACCIUM. Bagliv. de Fibra Motric. Ed. Lond. p. 202.

This Wood has the Taste of Cloves, but very mild, and quite grateful, and is of a Colour very much resembling that of Caphe or Cinnamon: It is imported from India, but is as yet unknown in our Shops.

Baglivi, as he says himself, in his Treatise de Fibra Motrice, very successfully prescribed a warm Potion of the Decoction for correcting the Acrimony, and scorbutic Dissolution, of the Lymph.

LIGNUM { CEDRINUM } & { JUNIPERUS. }
 { COLUBRINUM } & { COLUBRINUM LIGNUM. }

LIGNUM FLAVUM. Offic. *Lignum nostratibus*. FUSTIC-WOOD dictum. Raii Hist. 2. 1810. *Arbor baccifera Brasilensis, fructu tuberculis inæquali, Mori æmulo*. Ejusd. 1639. *Morus fructu viridi, Ligno sulphureo tinctorio*. Sloan. Cat. Jam. 128. Hist. 2. 8. Tab. 158. Fig. 1. Raii Hist. 111. Dendr. 14. *Tatai-ibi*. Jonst. Dendr. 64. *Xanthoxylum aculeatum Carpinifolius Americanum, cortice cinereo*. Pluk. Almag. 396. FUSTIC-TREE. Park. Theat. 1671. FUSTIC-WOOD.

It grows plentifully in the open champagne Country of Jamaica; the Wood is useful to the Dyers for giving a yellow Colour, but never prescribed in Medicine. Dale.

LIGNUM { GUAIACUM } See { GUAIACUM. }
 { JUNIPERINUM }
 { LENTISCINUM } & { LENTISCUS. }

LIGNUM LITERATUM. *Lignum Sinense*. LETTER'D WOOD.

This Wood, brought from China, is sometimes marked with Letters, whence it has its Name; but it is very little used in Physic. Geoffroy.

LIGNUM MOLUCCENSE ET GRANA TIGLIA. Offic. *Lignum Moluccense, foliis Malvae, fructu Avellanae minore, cortice molliore & nigricante, Pavana incolis*. C. B. 393. *Lignum Moluccense Pavana dictum, fructu Avellanae*. J. B. 1. 342. *Lignum Moluccense*. Park. 1664. *Pavana Moluccensis*. Jonst. Dendr. 458. *Guajapala*, *Nepalam*, *Waijapali*, *Ricinus arbor Indica caustica purgans*. Herm. Mus. Zeyl. 15. *Pinus Indica nucleo purgante*. C. B. 492. *Pinei nuclei Maluccani sive Purgatorii*. J. B. 1. 322. *Nuclei Maluccani*. Park. 1641. *Quaubayobautli III. seu semina arboris Cucurbitinae, Nuclei Pinus forma purgante*. Hernand. 87. *Ricinus arbor fructu glabro, Grana Tiglia Officinis dicto*. C. B. P. 370. *Palma Christi Indica*. Tourn. Mat. Med. 75. *Cadel Avanaçu*. Raii Hist. 2. 1855. PURGING NUTS. Dale.

This Tree is cultivated in Malabar, and other Countries: The Parts used in Medicine are, first, the Wood, which is of a spongy, light, rare Substance, of a pale Colour, cover'd with a thin Ash-colour'd Bark, of an acrid, biting, caustic, and nauseous Taste, and no Smell. Secondly, The Fruit, which is of an oblong oval Figure, of the Size of an ordinary Ricinus, or Mexico-seed, gibbous on one Side, and compressed on the other, of a blackish Colour, and of an acrid, burning, and nauseous Taste. Both the Wood and the Fruit are of an heating, inciding, attenuating, and caustic Quality, and therefore rarely to be met with in the Shops. See the Article CADEL AVANACU.

LIGNUM { NEPHRITICUM } & { BALANUS MYREPSICA. }
 { RHODIUM } & { ASPALATHUM. }

LIGNUM RUBRUM. Offic. *Brasilis simile Lignum Vermbrock Germanis dictum*. J. B. 1. 492. Raii Hist. 2. 1737. RED-WOOD.

It grows in Brasil, and the Wood is of Use in Dying; but I find no medicinal Virtues ascribed to any Part of this Plant.

LIGNUM { SANCTUM } See { GUAIACUM. }
 { SASSAFRAS } & { SASSAFRAS. }

LIGNUODES

L I G

LIGNUODES, λισνωδης, from λισνός, Soot. Sooty. This is an Epithet in *Hippocrates* for the Tongue, in some acute Disorders; importing its being brown, or black: And for the Spit, in Disorders of the Lungs, which is black.

LIGULA, in Anatomy, is the Clavicle, or the Glottis: Or it is a Measure of Capacity, of Things liquid or dry; being a Quarter of a Cyathus, equal to one forty-eighth of a Pint. *Arbutnot.*

Rhodius, in his Notes to *Scribonius Largus*, says, that a *Ligula* is half an Ounce, within two Scruples.

Ligula, also, is sometimes used to express a small Ligature.

LIGURINUS. The Name of a small Bird. See **SPINUS**.

LIGUSTICUM.

The Characters are;

The Leaves are lobated, with Incisions about their Edges, like those of Parsley. The Seeds are like those of the Siler, or Oſier.

Boerhaave mentions three Species of this Plant; which are,

1. *Ligusticum*; *Scoticum*; *Apium folio*. T. 324. *Ligusticum humilissimum*, *Scoticum a maritimis*, seu *Apium maritimum*, dulce *Scoticum*. Plukn. Phyt. 96. 2. *Seseli maritimum*, *Scoticum*. Par. Bar. *Imperatoriae affinis*, *umbellifera*, *maritima Scotica*. H. Edinb. App. *Siler montanum*, *Hippofelini foliis humilissimum*. M. H. 3. 176.

2. *Ligusticum*; *Græcum*; *foliis Apii*. T. C. 13.

3. *Ligusticum*; *vulgare*; *foliis Apii*. J. B. 2. 122. *Boerb. Ind. A. 52*. *Levisticum*. Offic. *Levisticum*, *vulgare*. Ger. 855. Emac. 1008. Park. Theat. 936. Raii Hist. 1. 437. *Ligusticum vulgare*. C. B. P. 157. *Angelica montana perennis Paludapii folio*. Tourn. Inst. 313.

The Roots of Lovage are thick, large, and much divided, with many Fibres of a brown Colour on the Outside, of an hot, strong, aromatic Smell and Taste. The Leaves are large, and winged, parted into several Divisions, but somewhat like Smal-lage, but larger, and of a darker-green Colour. The Stalks are thick, tall, and striated, or chaneled; on the Top of which grow Umbels of five-leav'd, small, yellow Flowers, which are succeeded by oblong, striated, brown Seed, two join'd together, as in other umbelliferous Plants. It is cultivated in Gardens, and flowers in *June* or *July*.

The Roots, Leaves, and Seed of Lovage are heating and drying; they warm and comfort the Stomach, expel Wind, provoke Urine and the Menſes, and are useful in pestilential Distempers, and all kinds of Agues; but they are seldom used in the Shops. *Miller's Bot. Off.*

It is cultivated in Gardens, and flowers in *June*; and, in every respect, agrees, as to Virtues, with *Angelica* and *Impe-ratoria*. It is alexipharmic, diuretic, and vulnerary. *Dale.*

The Root is oblong, an Inch in Thickness, brown on the Out-side, and pale within, of an acrid, aromatic, penetrating, and sweetish Taste, and of a pleasant and fragrant Smell, but to some strong and offensive. The Plant is native of *Scotland*, where it grows in the mountainous Parts, and is gathered among other Herbs by the Country-people, and apply'd to medicinal Uses. They commend this Herb for a purulent and sanguineous Asthma, and for all Diseases proceeding from Viscidity, on account of its attenuating Quality: It is recommended, also, as a Pectoral, and for an Asthma proceeding from Phlegm; for it opens and strengthens the Lungs: For these Purposes, it is usual to exhibit a Decoction of the Leaves, sweeten'd with Liquorice. This Plant is also suppos'd to be an Alexipharmac, and is well-known to be sudorific and diuretic. The Root cures all inflammatory and pituitous Diseases, which is no Contradiction, if we consider, that it has an emollient and resolvent Virtue, heating, yet not inflaming; and, therefore, may be serviceable in both Cases. The Root boiled and taken, provokes Spitting in a Peripneumony, which is a good Symptom; but, if it be boiled too much, it loses its Virtue: It is also an Aristolochic, or Provoker of the Menſes and Lochia, generates Milk in Nurses, and is reckoned among the Aphrodisiaca, or Promoters of Venereal Vigour. It increases the Semen in Men, as well as Milk in Women; and the Mid-wives give the Juice hereof as a great Secret for promoting the Lochia, and expelling the Fœtus and Secundines; it is excellent in Hysterics, and a Suppression of the Menſes; half an Ounce of the Seed, taken in Water, is a Sudorific. It is also a potent Carminative, and yields a Spirit, which they call *Lovage-water*, in *Dutch*, *Lavas*; which is much abused by our Countrymen [the *Dutch*]. Of the Seeds, which are reckoned among Carminatives, is prepared an heating Oil, free from excessive Acrimony. The Juice, taken every Day, is an excellent Nephritic; for it cleanses the Kidneys of Sand, and putrid Matter. Of the Seeds are prepared a Water and Spirit, which are effectual in Hysterics; and with the Spirit I myself have, in a surprising manner, relieved hysteric Women, when under the deplorable Symptom of Spasms of the Intestines. I have exhibited the same to melancholy Persons under the Power of their depraved Imaginations, and with good Success; for they have been greatly exhilarated thereby: But I took care to give it by another Name; for if the Patients should once come to know, that it was Spirit of Lovage that made them so chearful, they would always desire to be in

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the same Humour, and debauch themselves with it; for it is an agreeable Liquor, and one accustomed to it will never be able to forbear it. Lovage is reckoned a Specific in the Jaundice, either by its Sweetness, mitigating the Acrimony of the Bile, or by attenuating it, and so promoting its Expulsion from the Intestines; it is, also, diaphoretic, heats, and relieves under Colds. Outwardly, it is much used in Baths, and in Cataplasms appropriated to the Uterus, and Disorders of that Part. In a Word, it is a Plant of excellent Service in Cases where a balsamic Stimulus is required; and is reckoned, also, among Antiscorbutics. *Hist. Plant. ascript. Boerhaave.*

LIGUSTRUM.

The Characters are;

The Leaves are conjugated and caducous; the Flower is monopetalous, funnel-shaped, tetrapetaloid, and pentapetaloid, and seated upon a minute Calyx. The Ovary, in the Bottom of the Calyx, becomes a globular soft Fruit, full of Juice, and containing four Seeds, which are gibbous on one Side, and flat on the other.

Boerhaave mentions four Species of this Plant; which are,

1. *Ligustrum*. Offic. Ger. 1208. Emac. 1394. Raii Hist. 2. 1603. Synop. 3. 465. Tourn. Inst. 596. *Boerb. Ind. A. 2. 215*. J. B. 1. 528. *Ligustrum vulgare*. Park. Theat. 1446. *Ligustrum Germanicum*. C. B. P. 475. **PRIVET**.

Privet is a Bush or Shrub, which grows not to any great Bigness, having many smooth, tough, pliant Branches, cloath'd with small, oblong Leaves, broadest in the Middle, and sharp-pointed at the Ends, smooth, and without Indentings about the Edges, two at each Joint. The Flowers grow in thick Spikes at the End of the Branches, of a white Colour, each being monopetalous, and divided into four Segments: They are succeeded by Clusters of black Berries. It grows in Hedges, and flowers in *May* and *June*. The Berries are ripe in *September*.

The Leaves and Flowers are cooling, drying, and restringent, good for Ulcers and Inflammations of the Mouth and Throat, Bleeding of the Gums, and Relaxation of the Uvula. *Miller's Bot. Off.*

The Leaves of the Privet are astringent, bitter, and give a faint Tincture of Red to the blue Paper; the Flowers and Fruit give it a much deeper. We may conjecture by this, and the chymical Analysis, that there is an aluminous Salt involved in a great deal of Sulphur, in the Leaves of this Plant; but that this Salt is very much disengaged from it in the Flowers and Fruits. This does not hinder but there may be something urinous in the whole Plant; for, beside the great Quantity of Oil, and acid Liquors which it yields by Distillation, there is, also, a little urinous Spirit extracted from it. All these Principles, mix'd together, render the Privet very deterſive. The Gargarisms made with the Juice, or distilled Water, of this Plant, are good for the Diseases of the Throat; they dry away Ulcers, allwage the Inflammations of the Eyes, cure Scalds, stop the Spitting of Blood, and Hæmorrhages. *Martyn's Tournefort.*

2. *Ligustrum*; *foliis e luteo variegatis*. H. R. Par.

3. *Ligustrum*; *foliis argentatis*. Breyn. Prodr. 41.

4. *Ligustro similis arbor*; *Africana*. *Slangenboom*, vulgo *Ba-tavis*. *Boerb. Ind. alt. Plant. Vol. 2. p. 215*.

LIGUSTRUM INDICUM. See **ALCANNA**.

LIGUSTRUM NIGRUM. A Name for the *Lilac*; *laciniato folio*.

LIGUSMA, λυγσμα. A Contorsion of a Joint, not amounting to a perfect Luxation. *Galen, Lib. 2. Cap. 19. de Comp. M. P. G.*

LILAC. The Pipe-tree.

The Characters are;

The Calyx is monophyllous, tubulous, short, and quadrisid. The Flowers are monopetalous, funnel-shaped, quadripartite, or quinquefid, collected into Tufts, and furnished with two or three Stamina. In the Centre of the indented Calyx is seated the Ovary, which becomes a compressed Fruit, shaped like a Tongue, and divided into two Cells by an Interclosure, which bursts asunder when the Fruit is ripe; the two Cells are full of compressed margined Seeds.

Boerhaave mentions five Species of this Plant; which are,

1. *Lilac*. *Matth. 1237*. *Syringa cærulea*. C. B. P. 398.

2. *Lilac*; *flore albo*. T. 601. *Syringa*; *flore lacto*. H. Eyst. o. 1. F. 1. Fig. 3.

3. *Lilac*; *flore saturate purpureo*. T. 602.

4. *Lilac*; *folio ligustri*. T. 602. *Syringa*, *Persica*, *foliis lute-gris*. H. L. *Jasminum*, *Persicum*, *foliis non laciniatis*. Suth. 328.

5. *Lilac*; *laciniato folio*. T. 602. *Syringa*, *Persica*, *foliis laciniatis Ligustri*. H. L. *Jasminum*, *Persicum*, *foliis laciniatis*. H. E. Suth. 328. *Ligustrum nigrum*. Alpin. Exot. 179. *Ligustrum*, *foliis laciniatis*. C. B. P. 476. Prodr. 158.

This is an *Arabic* Name; though some derive it from the *Lily*, because its Flowers bear some Resemblance to the *Lily*: It is, also, called by the *Greeks* Συγγή, and by the *Latins* *Syringa*, because, when the Pith is taken out of its thick Branches, they are made into Pipes.

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LILI. The Name of one of *Paracelsus's* Arcana, the Basis of which is supposed to be Antimony. See **LILIUM**.

LILIAGO. A Name for the *Lilialtrum*; *Alpinum*; *minus*.

LILIASTRUM.

The Characters are;

The Flower is hexapetalous, naked, furnished with six Stamina, and embracing an oblong Ovary, full of angulous Seeds. The Root is like that of the Asphodel.

Boerhaave mentions but one Sort of this Plant; which is the

Lilialtrum; *Alpinum*; *minus*. *Tourn. Inst.* 369. *Boerb. Ind. A. 2.* 134. *Phalangium*. *Offic. Antiquorum*. Ger. Emac. 48. *Phalangium magno flore*. C. B. P. 29. *Phalangium folio Lili*. J. B. 2. 636. *Raii Hist.* 2. 1192. *Phalangium Allobrogicum*. Park. Parad. 150. **SPIDERWORT.**

It is cultivated, with us, in Gardens, and flowers in *June*. The Parts in Use are the Flowers, and Seeds, which, according to *Dioscorides*, being taken in Wine, are an Antidote against the Poison of the Scorpion, and the *Phalangium* (a venomous sort of Spider); and cure the Gripes.

LILIO-ASPHODELUS.

The Characters are;

The Root is like that of the Asphodel, shaped like that of the Navew. The Flower is like a Lily, but monopetalous, deeply jagged, with its under Part tubulated. The Fruit is generally oval, and contains roundish Seeds.

Boerhaave mentions two Species of this Plant; which are,

1. *Lilio-asphodelus*; *luteus*. Park. Parad. 148. *Lilium, luteum, radice Asphodeli*. C. B. P. 80. M. H. 2. 412.
2. *Lilio-asphodelus*; *punicus*. Park. Parad. 148. *Clus. H.* 137. *Lilium, rubrum, Asphodeli radice*. C. B. P. 80. M. H. 2. 412. *Boerb. Ind. alt. Plant. Vol. 2* p. 110.

The Plant is called *Lilio-asphodelus*, because it partakes of the Nature of both the Lily and the Asphodel; but I find no Virtues ascribed to it.

LILIO-FRITILLARIA.

The Characters are;

The Root is bulbous, like that of the Lily, which it resembles, also, in its Leaves and Stalks. The Flower is hexapetalous, bell-shaped, pendulous, and embracing an Ovary, which is like that of the Fritillaria.

Boerhaave mentions but one Species of this Plant; which is,

Lilio-fritillaria; quod *Lilium Perficum* *H. Eyf. Vern.* o. 5. *F. 4. Fig. 1.* *Dod. p.* 220. C. B. P. 79. M. H. 2. 406. *Lilium Sufianum*. *Clus. H.* 129, 130. *Boerb. Ind. alt. Plant. Vol. 2.* p. 141.

LILIO-HYACINTHUS. The Lily-hyacinth.

The Characters are;

It has the Leaves and the squamous Root of the Lily; the Stalk is naked, and the Flower hexapetalous, nearly resembling that of the Hyacinth; and embracing an Ovary, which becomes a Fruit, declining from a globous to an acuminate triangular Figure, consisting of three Cells, full of Seeds, which are almost of a globular Form.

Boerhaave mentions two Species of this Plant; which are,

1. *Lilio-hyacinthus*; *vulgaris*; *flore cœruleo*. T. 372. *Hyacinthus stellaris, foliis & radice Lili*. C. B. P. 46. M. H. 2. 376.
2. *Lilio-hyacinthus*; *vulgaris*; *flore niveo*. T. 372. *Hyacinthus stellaris, foliis & radice Lili, flore niveo*. C. B. P. 46. M. H. 2. 376. *Boer. Ind. alt. Plant. Vol. 1.* p. 136.

They are cultivated in Gardens; and they contain a great deal of Oil and Phlegm, and a little essential Salt.

Their Roots are softening, digestive, and resolute. *Lewey des Drogues*.

LILIO-NARCISSUS. Lily-daffodil.

Boerhaave mentions nine Species of this Plant; none of which have any medicinal Virtues attributed to them, at present, that I know of.

LILIO-ORNITHOGALUM. A Name, according to *Tournefort*, for the **LILIO-NARCISSUS**.

LILIUM.

The Characters are;

The Root is bulbous, consisting of fleshy Scales, which are placed one upon another, on the Outside, almost in a circular Order. The Stalks are surrounded with numerous Leaves. The End of the Pedicle supports a Placenta, to which, circularly disposed, grow six Petals, which are reflexed outwards, either moderately, as in the Lily, so called, or quite convolved outwards, as in the Martagon. Within these Petals, from the same Original, arise six Stamina closely united, surrounding a Tube, and furnished with long Heads. The Ovary grows on the Placenta within the Flower, is of a triangular Shape, surrounded within the Petals and the Stamina, by a double Row of margined Seeds; and shoots forth a long Tube from the Centre of the Apex.

Boerhaave mentions nineteen Species of this Plant, none of which have any medicinal Virtues ascribed to them, at present, that I know of, except the first, fifth, and seventh.

The first is the

Lilium; *album*; *flore erecto & vulgare*. C. B. P. 76. *Boerb. Ind. A. 2.* 135. *Lilium album*. *Offic.* Ger. 146. Emac. 490. *Raii Hist.* 2. 1109. *Lilium album vulgare*. J. B. 685. Park. Parad. 39. *Tourn. Inst.* 369. **WHITE LILY.**

This is a Flower which grows in every Garden, having a round scaly Root, and a Stalk three or four Feet high, with long, narrow, thick Leaves, and on the Top several large, sweet, white Flowers, with several yellow Apices in the middle, flowering in *June*.

The Flowers and Roots are used, and that chiefly in external Applications; they are emollient, suppling, and anodyne, good to dissolve and ripen hard Tumors and Swellings, and to break Impostumations.

The only officinal Preparation is the *Oleum Liliorum*. *Miller's Bot. Off.*

The distill'd Water of Lilies, with an Addition of Saffron and Cassia, are, by *Matthioli*, recommended for promoting Delivery, and the Expulsion of the Secundines; but *Camerarius* thinks the Saffron and Cassia superfluous. It is, also, recommended in Faintings, and Disorders of the Lungs, as the Asthma and Coughs; and *Simon Paulli* speaks of it as a Cosmetic, with the Addition of a little Camphire, and Oil of Tartar per Deliquium.

There is prepared, by Infolation, an Oil of the Flowers; but the Leaves must not be left fifteen Days in the old Oil; for the whole Plant abounding with a mucilaginous Juice, the Leaves easily putrefy, and the Oil will no longer smell of the Lilies, which is the principal Mark of its Goodness, but will have a rank and fetid Smell. Three Days therefore will be sufficient, after which we must put in fresh Leaves, and repeat the same the third time, which will be sufficient for the Preparation.

The Oil is of extraordinary Efficacy in all Pains and Affections proceeding from Cold; it relaxes Parts which are too tense, softens those which are too hard, and mitigates Pains; for which Reasons it is of service in the Colic, and nephritic Disorders, the Pleurisy, and the like; it is, also, of singular Use in indurated Nerves, in a Scirrhus of the Uterus, and a consequent Suppression of the Menfes. *C. Hoffmann.*

The Root is seldom used internally, but frequently applied for softening and ripening of Tumors, for removing Corns of the Feet, being mixed with old Lard, for mollifying the Pudenda in Labour, and for Burns, and the like Cases. The Seeds are exhibited in Water of Vervain, or the like, in order to facilitate the Birth. *Schroder.*

Godorus, Serjeant-surgeon to Queen *Elizabeth*, cured many of the Dropsy, as we are inform'd by *Gerard*, with the Juice of the Root mixed with Barley-flower, and baked in Cakes, and so eaten ordinarily for a Month or six Weeks together with Meat; but no other Bread was used during that Time. The same Surgeon found by Experience, that the expressed Juice of the bruised Root, given for two or three Days together in Wine, expels the Poison of the Pestilence, and causes it to break out in Pustules and Blisters on the Skin. *Raii H. P.* p. 1109.

The fifth is the

Lilium; *purpureo-croceum, majus*. C. B. P. 76. *Tourn. Inst.* 369. *Boerb. Ind. A. 2.* 137. *Hemerocallis*. *Offic. Hemerocallis, Lilium rubrum*. Mont. Ind. 44. *Lilium aureum*. Ger. 148. Emac. 192. Park. Parad. 38. *Lilium rubens croceum majus*. J. B. 2. 688. *Raii Hist.* 2. 1110. **RED LILY.**

It is cultivated in Gardens, and flowers in *June* and *July*; the Parts in Use are the Root and the Leaves. The Root drank, or made into a Pessary with Honey and Wool, expels Water and Blood. The Leaves bruised mitigate Inflammations of the Breasts contracted after Childbirth, and Inflammations of the Eyes. The Root and Leaves are very successfully applied by way of Cataplasm to Burns. *Dioscorides*. The Root is aperitive. *Mont. Ind.*

The seventh is the

Lilium; *floribus reflexis; montanum*. C. B. P. 77. *Raii Hist.* 2. 1112. *Boerb. Ind. A. 2.* 135. *Martagon*. *Offic. Martagon montanum sive sylvestre minus*. Park. Parad. 31. *Lilium montanum minus*. Ger. 150. Emac. 196. *Lilium flore nutante ferrugineo minus*. J. B. 2. 692. **MARTAGON, or TURKS CAP.** *Dale, p.* 241.

It is cultivated in Gardens, and flowers in *June*. The Root, which is used, is substituted, in our Shops, in the room of the yellow Asphodel. *Buxb.* The common People hang it about the Necks of Infants, to facilitate Denition. *Rupp.*

LILIUM is, also, a Name for several Sorts of *Corona Imperialis*.

LILIUM CONVALLIUM.

The Characters are;

The End of the Pedicle runs into a monopetalous, bell-shaped, pendulous, spiked Flower, divided at the Top into six Segments. The Ovary grows on the Apex of the Pedicle within the Flower, and becomes a soft, globular Berry, full of small round Seeds, closely compacted; the Leaves resemble those of Plantane, or the Lily.

Boerhaave

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Boerhaave mentions three Species of this Plant; which are,
1. *Lilium Convallium*; album. C. B. P. 304. *Tourn. Inst.* 77. *Boerb. Ind. A.* 2. 64. *Lilium Convallium*. Offic. Ger. 331. Emac. 49. *Raii Hist.* 1669. Synop. 3. 264. *Lilium convallium flore albo*. Park. Parad. 349. *Lilium Convallium vulgo*. J. B. 3. 531. LILY OF THE VALLEY.

The Lily of the Valley, or *May Lily*, has a slender creeping Root, that runs upon the Surface of the Earth, shooting out two or three Leaves oblong, round, and full of Nerves, five or six Inches long, from the middle of which rises a Stalk, about a Span high, angular and slender, bearing six or seven Flowers in a Spike, one above another, and looking all one Way; they are small, hollow, and round, of one Leaf cut into five Parts, of a pleasant, grateful Scent, which are succeeded by small round Berries.

Lilies of the Valley are of great Service in all Disorders of the Head and Nerves, as Apoplexy, Epilepsy, Palsy, Convulsions of all Kinds, Vertigo, Swimming in the Head; and are frequently used in Errhines, and cephalic Snuff; a large Quantity of them are put in the *Aqua Pionia composita*, and in the *Spiritus Lavendulae compositus*. *Miller's Bot. Off.*

The Flowers, being analysed, after a long Maceration, yield several acid Liquors, a good deal of concentered volatile Salt, and a great Quantity of Oil: Thus we may believe they contain a good deal of Sal Ammoniac and Sulphur, allayed with a little Earth.

These Flowers are aperitive, good for the Palsy, Epilepsy, and Vertigo; a Conserve is made of them, and they are distilled. *Tragus* macerated them in Wine, before he distilled them. *Camerarius* put them in a Pot, well stopp'd, and buried them in an Ant-hill. About a Month afterwards he gathered an oily Liquor, which he much esteemed for the Gout and the Sciatica. The Spirit of the Flowers, drawn with Spirit of Wine, is excellent to make the Tincture of Ambergrise. Every body knows, that the Root and Flowers, being powdered, cause one to sneeze. *Martyn's Tournefort.*

In Germany they make a Wine of the Flowers, by drying them in the Summer, and, in the Time of Vintage, mixing them with their Grapes when pressed: This Wine is prescribed in cephalic Disorders; and, also, as a Cordial in the cardiac Passion, and Lipothymy. Some distil the fresh Flowers in old generous Wine, either by themselves, or with the Flowers of Lavender and Rosemary, in *Balneo Mariae*. They who would have it stronger than ordinary, repeat the Infusion, and distil it over again: The Water thus prepared is called by *Martbiolus Aqua aurea*, "Golden Water," being reserved in Gold and Silver Vessels, against all dangerous Disorders. The Flowers, as well as the Root, dried and pulverized, are a celebrated Parnic. *Raii Hist. Plant.*

2. *Lilium convallium*; flore rubente. C. B. P. 304. J. B. 3. 533.
3. *Lilium convallium*; latifolium; flore pleno variegato. *Didac. T.* 77. *Boerb. Ind. alt. Plant. Vol. 2. p.* 65.

LILIUM LUTEUM. A Name for the *Lilio-asphodelus*; *luteus*.

LILIUM RUBRUM ASPHODELI RADICE. A Name for the *Lilio-asphodelus*; *punicus*.

LILIUM SUSIANUM. A Name for the *Lilio-fritillaria*; quod *Lilium Persicum*.

LILIUM ZEYLANICUM. A Name for the *Methonica*; *Mala-barorum*.

The LILIUM PARACELSI is thus directed in the *Collectanea Chymica Leidensia*.

Take of the Regulus of Mars, rightly prepar'd; dissolve it in equal Parts of *Aqua-fortis*, and Spirit of Salt. Pour into this Solution the Sulphur procur'd from the Regulus of Antimony, by boiling, till a Precipitation is made; the Precipitate will be of a yellowish Red, which edulcorate, and reserve for Use. The Dose is from four to six Grains.

If this Powder operates too violently, it may be mitigated, and fix'd thus:

Take of the *Lilium Paracelsi*, prepar'd as above, one Part; of common decrepitated Salt, two Parts. Let them be rubbed together, and calcin'd over a gentle Fire, for an Hour, so as not to melt: Then let it be edulcorated, and dried.

It is given in the Venereal Disease; in obstinate Itches; in Fevers, Dropsies, and deep-rooted Obstructions, mixed with Mithridate, or Diascordium.

In order to check its emetic Quality, it should be given with Sudorifics.

LIMA. A File, or Rasp, used in Pharmacy, to reduce hard Substances to fine Particles; whose Consistences will not admit of powdering.

LIMANCHIA, from *λιμνῆς*, Famine, and *ἀγχῶν*, to kill, or strangle. Excessive Abstinence from Aliment.

LIMATURÆ. Filings, or Raspings.

LIMAX TERRESTRIS. The Shell-snail.

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LIMAX ATER. Offic. List. Animal. Angl. 131. *Ejusd. Hist. Conch.* 1. N. 102. *Limax tertia tota nigra*. Aldrov. de Insect. 702. *Jonst. Hist. Insect.* 38. *Limax*. Mer. Pin. 207. THE BLACK SNAIL.

Bruised, and applied to Ulcers, they have a lenient Effect in an extraordinary Measure, according to *Enzelius*. Dale.

LIMAX RUBER. Offic. Schrod. 5 284. *Limax quartus subrufus*, *montanus*. List. Hist. Animal. Angl. App. 6. *Limax subrufus*. *Ejusd. H. Conch.* 1. N. 103. *Limax magna Germanis colore rufa*. Aldrov. de Insect. 702. *Jonst. de Insect.* 138. THE RED SNAIL.

It is found in the Fields. The Liquor of Snails, which is what is used in Medicine, is prepared by cutting the Snails in small Pieces, then mixing them with an equal Quantity of Salt, and afterwards putting them into *Hippocrates's* Sleeve, and leaving them in a Cellar, or cool Place, where they dissolve, and pass off in a Liquor. This Liquor is used to anoint the Parts affected with the Gout, and to extirpate Warts, being first scraped with a Penknife; it also cures a Prolapsus or Falling down of the Anus. Dale.

LIMBUS, in *Paracelsus*, seems to mean the Universe.

LIMNITIS. This is, according to *Paulus Aegineta*, L. 7. C. 19. the same as ADARCES. But *Oribasius*, de Loc. Affect. makes it somewhat different.

LIMNOPEUCE. A Name for the *Equisetum*; *palustre*; *brevioribus foliis*, *polypermum*.

LIMOCTONIA, from *λιμῆς*, Hunger, or Famine; and *κτείνω*, to kill. Excessive Abstinence, sufficient to destroy a Patient.

LIMODORUM. A Name for the *Orobanche*; *major*; *Garyophyllum olens*.

LIMON.

The Characters are;

The Leaves, Flowers, and Fruit, are like those of the Citron; only the Fruit is less, and its Pulp of a much thinner Substance.

Boerhaave mentions ten Species of this Plant; which are,

1. Limon; vulgaris. *Ferr. Hist.* 193. *Tourn. Inst.* 621. *Boerb. Ind. A.* 2. 240. *Malus Limonia*. Offic. Ger. 1278. Emac. 1462. Park. Theat. 1507. *Raii Hist.* 2. 1656. J. B. 1. 96. *Malus Limonia acida*. C. B. P. 436. Limon. Aldrov. Dendr. 491. THE LEMON-TREE.

The Lemon-tree pretty much resembles the Orange in its manner of growing, having several sharp Thorns in the Branches, which are clothed with perennial green Leaves, larger and rounder than those of Oranges, and want that Heart-like Foot-stalk which they have. The Flowers are white, and in Colour and Shape like them; but the principal Distinction is in the Fruit, which is of a paler yellow, and an oval Shape, with a Nipple-like Process at the End, of a very grateful Smell, and full of pleasant, very sour Juice.

Lemons are cooling and grateful to the Stomach, quenching Thirst, and increasing an Appetite, useful in Fevers, as well common as malignant and pestilential; they provoke Urine. The Juice, mixed with Salt of Wormwood, is an excellent Medicine to stop Vomiting, and to strengthen the Stomach. The Peel is of the Nature of Citron-peel, but of less Virtue, and therefore not so much used.

The only official Preparation is the Syrup of the Juice. *Miller's Bot. Off.*

Lemons have a more acid Taste than Oranges or Citrons, and therefore, probably, have a more cooling Juice. They are useful for the same Purpose as Citrons; but, as they are of less Efficacy against Poisons, so they are esteemed more effectual against hot Distempers. Lemons, as *J. Bauhine* says, are not eaten entire, but deprived of their Peel, and then cut into Slices, and well sprinkled with Sugar; thus prepared, they are extremely palatable, potently extinguish Thirst, and allay feverish Heats. The Juice of Lemons is very effectual in dissolving the Stone, and deterging the Parts, as we are assured by *Herman Grube*, *Crato*, and other celebrated Physicians. Syrup of the Juice of Lemons is reckoned an excellent Remedy against the Stone, and Obstructions of the Kidneys, and, also, against Thirst and Heat in burning Fevers; it strengthens the Heart and Stomach, and allays the Effervescence of the Bile; on which Accounts it is exhibited with good Success in Weaknesses, Lipothymies, Faintings, Vomiting, and the Hiccups, Symptoms commonly attendant on burning Fevers. For nephritic Disorders,

Take Shavings of Wood of Oak, one Ounce; Spring-water, six Pints; Juice of Lemons, four Ounces: Infuse them all, for twenty-four Hours, over hot Ashes; and boil them afterwards to the Consumption of a third Part, and strain off the Liquor. The Dose is half a Pint.

It is very good for a hot Distemperature of the Liver, for Ulcers of the Kidneys, and Heat of Urine, but principally for evacuating salt and viscid Phlegm from the Kidneys, which is the Cause of the Dysury and Strangury. *Raii H. P.*

Of late Years, the Juice of Lemons, perfectly neutralized with Salt of Wormwood, has been very much given in Fevers, and

with very good Effect, in the Quantity of about half an Ounce, repeated at due Intervals.

2. Limon; dulci Medulla; vulgaris. *Ferr. Hist.* 229.
3. Limon; acris. *Ferr. Hist.* 331.
4. Limon; dulcis. *Ferr. Hist.* 331.
5. Limon; folio angustiori; spinoso. *Ind.* 264.
6. Limon?
7. Limon; folio angustissimo; folio & fructu variegatis.
8. Limon; folio Cerasi.
9. Limon; fructu Aurantii. *Pomum Adami.* *Ferr. Hist.* 313. *Malus Adami.* C. B. P.

This Fruit agrees in Figure, Colour, and Medicinal Virtues, with the Orange.

10. Limon; flore pleno. *Boerb. Ind. alt. Plant. Vol. 2.* p. 240.

LIMONADA Limonade.

LIMONIA MALUS. The Lemon. See LIMON.

LIMONIUM. Sea Lavender.

The Characters are;

The Root is fibrous; the Stalks naked and ramous; the Calyx long, tubulous, and expanded at the Top, into a kind of pentagonal Flower; within which are again inclosed other Flowers, like Clove-gilliflowers; or else monopetalous, Funnel-shaped, multifid, furnish'd with five Stamina, generally united two together, often prolific, and joined near the Stalks. The Ovary lies concealed after a very artificial Manner, in the very Bottom of the Calyx; and at last becomes an oblong Seed, involved in a squamous Calyx, as in a Capsule. The Calyx, Flower, and Ovary, in these Plants, are of so perplexed and amazing a Structure, that they are not as yet perfectly discover'd by the most diligent Inquirer.

Boerhaave mentions fourteen Species of this Plant, none of which have any medicinal Virtues attributed to them, except the first; which is,

Limonium; maritimum; majus. See BEHEN RUBRUM. *Boerb. Ind. alt. Plant.*

LIMONIUM MAJUS. A Name for the *Statice*.

LIMONIUM MINIMUM. A Name for the *Statice montana minima*.

LINAGROSTIS. The Name of a Plant, of which *Tournefort* mentions three Species; which are,

1. Linagrostis panicula ampliore. *Inst.* 664. *Linagrostis*. Tabern. Hist. 559. *Gramen tomentarium, Linum pratense*. Tabern. Icon. 230. *Gnaphalium Tragi sive Juncus bombycinus*. J. B. 2. 514. COTTON-GRASS. Common on boggy Places.
2. Linagrostis panicula minore. *Inst.* 664.
3. Linagrostis Spica singulari, Alopecuroides. *Juncus capitulo lanuginoso, sive Schœnolaguros*. C. B. P. 12. *Just.* 2. 426. Vaill. 117. FIARES-TAIL RUSH.

On *Elsemere Meers* in *Shropshire*, and *Pillimoss* in *Lancashire*; on the great Bog beyond *Joan Cote's*, towards *Croydon*, in great Plenty. Mr. *J. Sherard*. *Syn. Ed.* 3. 436.

LINAMENTUM. Scraped Lint.

LINARIA.

The Characters are;

The Leaves grow alternately, or three together, and are of an oblong Figure: The Calyx is monophyllous, and divided into five long acute Segments: The Flower is tubulated in the lower Part; and, running out into a long Spur, which is extended beyond the Tube contained within the Calyx, has its upper or fore Part perforated, and bilabiated, the upper Lip being cut, and the lower disposed in a grinning Form, and divided into three Parts. From the Bottom of the interior Part of the Tube of the Flower arise four Stamina. The Ovary, which grows to the Placenta in the Bottom of the Calyx within the Flower, produces a long Tube, and becomes a round Fruit, divided by an Interclosure into two Cells, which open in various Manners, and contain Seeds, which are either compressed and marginated, or angulated and roundish.

Boerhaave mentions twenty-two Species of this Plant, none of which have any particular medicinal Virtues ascribed to them, except the 6th, 17th, and 19th.

The 6th is the

Linaria; vulgaris; lutea; flore majore. C. B. P. 212. *Tourn. Inst.* 170. *Boerb. Ind. alt.* 231. *Linaria lutea vulgaris*. Ger. Emac. 550. *Raii Hist.* 1. 752. *Synop.* 3. 281. J. B. 3. 456. *Linaria vulgaris nostras*. Park. Theat. 458. TOAD-FLAX.

Toad-flax has a white, slender, creeping Root; from which arise several Stalks, a Foot or more in Height, covered all over with long, narrow, sharp-pointed Leaves, of a bluish-green Colour; on the Tops of the Stalks grow several pretty, large, yellow Flowers, of a single Leaf, the fore Part having the Figure of a gaping Mouth, and the hinder Part, a Heel or Spur; the under Lip is largest, downy or hairy in the Middle, and of a Saffron-colour: The Seed is small, black, and flattish, growing in a round bicapsular Seed-vessel. It grows every-where upon Banks and Hedges; and flowers in July.

The whole Herb is used, and is of an aperitive and diuretic Nature; opening Obstructions of the Liver and Spleen, helping the Dropsy and Jaundice, which it carries off by Urine. The

Ointment, made with Hogs-lard, and a good Quantity of this Herb, is accounted excellent for the Piles, applied to the Part; being mixed with some of the Yolk of an Egg at the Time of using it.

The only officinal Preparation is the Unguentum Linarice. *Miller's Bot. Offic.*

The Toad-flax has an herby saltish Taste; being rubbed, it smells like Elder: Its Leaves give no Tincture of Red to the blue Paper, but the Flowers give it a pretty deep one; which makes us believe, that its Leaves contain an acid Salt, approaching to that which is natural in the Earth, but mixed in this Plant with a considerable Quantity of fetid Oil: The Flowers, also, have a disagreeable Smell; but the Sal Ammoniac is more disengaged there, which is the Reason that they stain the blue Paper.

This Plant, applied outwardly, is very lenitive and resolvent, Qualities inseparable from the fetid Oil of Tartar, Vipers, Harts-horn, and such-like. I don't know any better Remedy to assuage the Pain of a Cancer, than to anoint it with fresh Butter, mixed with some Oil of this Plant, which has been drawn by the Retort. The Toad-flax then resolves the Blood, or Matter, extravasated in the porous Parts of the Flesh; and, at the same time, relaxes the Fibres, whose extraordinary Tension causes insupportable Pains. The Ointment of Toad-flax is excellent to abate the Inflammation of the Hemorrhoids, and is thus prepared:

Boil the Leaves in Oil, in which Beetles or Woodlice have been infused; then strain the Oil through a Linnen Cloth; and add to it the Yolk of an hard Egg, and as much new Wax as will give it the Consistence of an Ointment.

Others boil the Toad-flax with Lard, till it becomes of a fine green Colour, and add to it the Yolk of an Egg, when they would make use of it. *Horstius* relates, that a Landgrave of Hesse gave *John Valsius*, his Physician, a fat Ox every Year, for discovering this Secret to him. Some fill little Bags with dried Chamomile and Toad-flax, boil them in Milk, and apply them to the Piles. The Juice, and the distilled Water, of this Plant are good for Inflammations of the Eyes. *Casalpinius* commends it for the Cancer, and for the St. Antony's Fire; *Tragus*, for the Cancer and Fistula: He affirms, that it is diuretic; and that its distilled Water is laxative, and aperitive, good for the Jaundice, and Obstructions of the Liver. *Martyn's Tournefort*.

The common yellow Toad-flax disturbs the Belly, as *Tragus* observes; it is a very potent Diuretic. A small Glass of the Water, with a Dram of the pulverized Bark of the Dwarf-elder, provokes Urine in an extraordinary manner; for which Reason this Medicine is to be given only to hydroptic Persons. The same Water, being drank, loosens the Belly, and cures the Jaundice: The Decoction of the Herb in Wine is very effectual in the same Disorder; and opens Obstructions of the Liver. The same Water, or the Juice, instilled into the Eyes, removes an Inflammation, or Redness; which *Tragus* says he had observed by long Experience. Linnen Cloths, moisten'd in the same Water, are very proper to wash and cleanse all Sorts of Ulcers, and the Juice removes Spots, and all cutaneous Blemishes of the Face. *Trag.* It is not only a most speedy and effectual Remedy in a recent Jaundice, but for all such as are disposed to a Dropsy. Some, as *Label* observes, apply the Herb to the Bottoms of their Feet, within their Shoes, in order to expel a Quartan. *Raii Hist. Plant.*

The 17th is the

Linaria; hirsuta folio; subrotundo; flore ex herbido flavescente. *Hist. Oxon.* 2. 503. *Boerb. Ind. alt.* 232. *Elatine, Veronica femina*. *Offic.* *Elatine folio subrotundo*. C. B. P. 252. Park. Theat. 553. *Elatine mas folio subrotundo*, J. B. 3. 372. *Veronica femina Fuchsii sive Elatina*. Ger. 501. Emac. 625. *Linaria segetum, Nummularia folio villosa*. *Tourn. Inst.* 169. *Linaria Elatine dicta folio subrotundo*. *Raii Hist.* 1. 759. *Synop.* 3. 282. FEMALE FLUELIN.

This is a small low Plant, creeping upon the Ground, with slender hairy Branches, seldom exceeding a Span in Length, on which grow alternately many softish and hairy Leaves, roundish, but yet a little pointed at the Ends, on short Foot-stalks: At the setting on of the Leaves spring small Flowers, on long, slender, hairy Footstalks, in Shape like the Flowers of Toad-flax, the upper Lip being yellow, and the lower purple, with a Heel in the hinder Part; these are succeeded by bicapsular Seed-vessels, containing small black Seed. The Root is small and fibrous, perishing every Year; it grows in Corn-fields, seldom flowering till the Corn is cut down.

Tho' *Morison*, *Ammanius*, Mr. *Ray*, and others, make this a Species of Linaria; yet *Rivinus* will not allow it to be one, because the Seed-vessel, when ripe, opens in a different manner from the Linaria; but his Distinction seems to be too nice.

Fluelin is a vulnerary Plant, and accounted good for old Ulcers, and spreading cancerous Sores, and useful in Fluxes and Hemorrhages of all Sorts, and for Inflammations of the Eyes. *Abiler's Bot. Off.*

The Flowers of this Plant are no-where well represented; its Leaves are very bitter, a little styptic, and have a Smell a little oily; they hardly give any Tincture of Red to the blue Paper: Whence we may conjecture, their Salt very much resembles the natural Salt in the Earth, being joined with a great deal of Sulphur, and terrestrial Parts: This Plant is vulnerary, sweetening, and deterfive; it cleanses the Blood, and is restorative: *Casalpinus* esteem'd it for scrophulous Tumors, and the Leprosy. *Pena* and *Lobel* relate, that a Barber cured by it a carcinomatous Ulcer in the Nose of a certain Person, so eat away, that several Physicians advis'd to cut it off. Three Ounces of the Juice, or six Ounces of the Water, of this Plant, distilled in Balneo Mariæ, drank twice a Day, is good for the Cancer, Gout, Tetters, Leprosy, and Dropsy. There may be a Tincture drawn from it with Spirit of Wine; and an Extract of it prepared, the Dose of which is a Dram.

The following Ointment is good for Ulcers, the Piles, the King's-evil, and for all the Diseases of the Skin.

Macerate the Leaves of this Plant for twenty-four Hours, in as much White-wine as is sufficient to cover them: Squeeze out the Juice, and boil it to the Consumption of one Third, and add as much Lard as will give it the Consistence of an Ointment. *Martyn's Tournesort*.

The 19th is the

Linaria; folio glabro, subrotundo; Hederæ folio Clematidis. *Hist. Oxon.* 2. 503. *Boerb. Ind. alt.* 232. *Cymbalaria*. *Offic.* C. B. P. 306. *Cymbalaria Italica*. *Ger. Emac.* 529. *Cymbalaria Italica hederacea*. *Park. Theat.* 681. *Cymbalaria flosculis purpurascens*. *J. B.* 3. 685. *Linaria Cymbalaria dicta*. *Raii Hist.* 1. 759. *Linaria hederacea folio glabro seu Cymbalaria vulgaris*. *Tourn. Inst.* 169. *Raii Synop.* 3. 232. IVY-LEAVED TOAD-FLAX.

It grows at *Basel*, in *Switzerland*, on the very Walls of the City; and nothing is more frequent on moist Walls, loose Piles of Stone, and Rocks, in *Italy*. The Plant is of a cold and humid Quality, mixed with somewhat of Astringency; and it is certain from Experience, that this Herb has the same Virtues as the common Navelwort. Some, as *Matthioli* informs us, prescribe the Herb to be eaten in Sallads, for the Fluor albus; but for those of our Country, where Sallads are not so commonly eaten, *Parkinson* recommends a Conserve of the Leaves. *Raii Hist. Plant.*

LINARIA AUREA. A Name for the *Coma aurea*; *Germanica*.

LINARIA SCOPARIA. A Name for the *Chenopodium*; *Lini folio villosa*.

LINARIA, in Zoology, is a Linnet; which is thus distinguished:

Linaria. *Offic.* *Aldrov.* 2. 824. *Gesn. de Avib.* 530. *Charlt. Exer.* 88. *Jonst. de Avib.* 69. *Mer. Pin.* 176. *Linaria vulgaris*. *Raii Ornith.* 258. *Ejusd. Synop. A.* 90. *Linote*. *Bellon. des Oyse.* 356. **THE COMMON LINNET.**

The Flesh is recommended by some as an Analeptic, or Restorative; it, also, expels Stones from the Kidneys and Bladder.

LINCTUARIUM. A Linctus.

LINCTUS. A Linctus is a Medicine of a Form somewhat more thin than an Electuary, and thicker than a Syrup: It is called *Eclegma*, *Eclectos*, and sometimes *Lohoc*, or *Loch*: It is generally order'd to be lick'd from a Stick of Liquorice, (whence its Name) or to be taken out of a Spoon; and is principally directed in Disorders of the Mouth, Fauces, Oesophagus, Larynx, Aspera Arteria, and Lungs; and is usually prepared of emollient and demulcent, but sometimes of astringent, Ingredients, Electuaries, Syrups, Oils, Conserve, Pulps, Powders, and other Substances, which are of an agreeable Taste.

LINEA ALBA.

The Linea alba is a white Line, which runs from the Cartilago Ensisformis to the Os Pubis, dividing the Abdomen exactly in the Middle; and is formed out of the Tendons of the oblique and transverse Muscles.

LINGUA. The Tongue. A previous Knowledge of the Os Hyoides is necessary, in order to understand the Anatomy of the Tongue.

The Os Hyoides, or Bone of the Tongue, is situated in the middle Space between the Angles of the lower Jaw. It is a little Bone, and resembles, in some measure, the Basis of the lower Jaw, or a small Bow. The ancient *Greeks* compar'd it to one of the Vowels in their Language, and from thence came the Name of *Os Hyoides*, *Yoides*, or *Ypsiloides*.

It is distinguished into the Basis, which is the anterior Part; two large Cornua, which are the lateral Parts; and two small Cornua, or Appendices, which are the superior Parts; to the upper End of which other Appendices are frequently joined.

The Basis is the broadest and thickest Part. It is situated transversely, and two Sides may be distinguished in it, one anterior unequally convex, and one posterior unequally concave: It has, likewise, two Edges, one superior, and one inferior; and two Extremities, one to the Right, and one to the Left: The Angles might, likewise, be distinguished.

In the Middle of the fore Side is a perpendicular Eminence, which divides it into Right and Left Portions, and which terminates above in a small pointed Tubercle, with a small hollow Impression on each Side. At the lower End of this Eminence there are, also, two such Impressions, but much larger. Near each Extremity we find Inequalities, which end in Angles of the Basis. The back Side, as has been already said, is hollow. The large Cornua are joined to the Extremities of the Basis, by cartilaginous Symphyses; which, in Adults, become long. In each Cornu we distinguish the Root or anterior Extremity, the Point or posterior Extremity, and the middle Portion. The Length of each Cornu is near double that of the Basis. The Roots are thick and broad, and by them the Cornua are joined to the Basis. The lower Part of the middle Portion is a little crooked, and, also, broader than the rest. The Points end in a little cartilaginous Head; and, in the natural State, a short Ligament, with a little round Bone, or Cartilage, runs down from each of these Heads.

The small Cornua are placed on the Symphyses of the large ones, almost perpendicularly, being only inclined a little outward and backward. They are joined by a cartilaginous Symphysis peculiar to them; and are themselves Cartilages in young People; but they afterwards ossify, though not always at the same Age, and at last their Symphysis is lost. The Length of these Cornua varies pretty much; and, at the upper Extremity of each of them, we sometimes meet with one or more additional Portions, in the Shape of little oblong Pearls, or of little Pillars, set upon one another, and held together by a kind of Ligament, more or less cartilaginous. The Substance of these Appendices is different in different Ages, in the same manner as that of the Cornua themselves.

The Os Hyoides is connected, by a ligamentary Symphysis, with the Styloide Apophysis, the Cartilago Thyroides of the Trachea Arteria, and the Epiglottis. It is, also, connected by Muscles with other Parts.

The principal Use of this Bone is to be the Basis and Support of the Tongue. The Pliability of the small Cornua is likewise believed to contribute to the Perfection of Singing.

Every one knows, that the Tongue is a soft fleshy Body, which fills all that Part of the Cavity of the Mouth, that is surrounded by the alveolar Border and Teeth of the lower Jaw, and extends still farther back. All this Space is, therefore, in a manner, the Mould and Measure of the Length and Breadth of the Tongue, as well as of its Thickness and Figure.

The Tongue is divided into the Basis and Point, the upper and under Sides, and the lateral Portions or Edges. The Basis is the posterior, or thicker Part; the Point, the anterior and thinnest Part. The upper Side is not quite flat, but a little convex, and divided into two lateral Halves, by a shallow depressed Line, called Linea Linguae Mediana. The Edges are thinner than the other Parts, and a little rounded as well as the Point. The lower Side reaches only from the middle of the Length of the Tongue to the Point.

The Tongue is principally composed of very soft fleshy Fibres, intermixed with a particular medullary Substance, and disposed in various Manners. Many of these Fibres are confined to the Tongue, without going any farther; the rest form separate Muscles, which go out from it in different Ways, and are inserted in other Parts. All the upper Side of the Tongue is covered by a thick Membrane of a papillary Texture; upon which lies another very fine Membrane, like a kind of Epidermis, which is likewise continued over the lower Side, but without Papillæ.

Three Sorts of Papillæ may be distinguished in the upper Side of the Tongue; Capitæ, Semi-lenticulares, and Villosæ: Those of the first Kind are the largest, resembling little Mushrooms with short Stems, or Buttons without a Neck: They lie on the Basis of the Tongue, in small superficial Fossulæ.

They resemble small conglomerate Glands, seated on a very narrow Basis, and each of them has sometimes a small Depression in the middle of their upper or convex Side: They occupy the whole Surface of the Basis of the Tongue; and they are situated near each other, in such a manner, as that the most anterior form an Angle: They are glandular Papillæ, or small salival or mucilaginous Glands, of the same kind with those which are to be described hereafter.

We often observe, about the Middle of this Part of the Tongue, a particular Hole of different Depths; the inner Surface of which is entirely glandular, and filled with small Papillæ, like those of the first Kind. It is called Foramen cæcum *Morgagni*, as being first described by that Author: Since that time, *Vaterus* has discover'd a kind of salival Ducts belonging to it; and *Heister* found two of these Ducts very distinctly, the Orifices of which were in the Bottom of the Foramen Cæcum, near each other: He observ'd the Ducts to run backward, diverging a little from each other; and that one of them terminated in a small oblong Vesicle, situated on the Side of the small Cornu of the Os Hyoides.

The Papillæ of the second Kind, or Semi-lenticular, are small orbicular Eminences, only a little convex, then circular